

The cover features a central white circle containing the title text. This circle is surrounded by a larger, concentric gold circle with a marbled texture. The background outside these circles is white, with a black triangular shape in the bottom right corner.

**National SAICM  
Priority Setting  
Workshop  
Report**

September 17, 2009

The project “Updating a National Chemicals Management Profile, Development of a National SAICM Capacity Assessment, and Holding of a National SAICM Priority Setting Workshop” in Barbados was developed with the technical assistance of the United Nations Institute for Training and Research (UNITAR) and the financial support of the Strategic Approach to International Chemicals Management (SAICM) Quick Start Programme Trust Fund.



**unitar**

United Nations Institute for Training and Research

## Table of Contents

List of Acronyms	4
1. Introduction	6
2. Opening Ceremony	7
2.1 Recent Developments on SAICM and ICCM-2	9
3. Session I—Capacity Assessment Overview and Priority Setting	15
3.1 Presentation on the Capacity Assessment Report	15
3.2 Presentation of the Methodology for Priority Setting	20
3.3 Preliminary List of Prioritization Criteria	26
3.4 National Priorities for Chemicals Management	28
4. Session 2: Planning of a National Programmatic Framework for the Sound Management of Chemicals and Mainstreaming Chemicals Management into National Development Plans	38
4.1 Recommendations for Mainstreaming Chemicals Management into National Development Plans	38
4.2 Action Plans for National Programme Framework	42
5. Review of Workshop Resolutions and Wrap-up	57
5.1 Closing Remarks	57

## List of Acronyms

<b>BADMC</b>	<b>Barbados Agricultural Development and Marketing Corporation</b>
<b>BAS</b>	<b>Barbados Agriculture Society</b>
<b>BCC</b>	<b>Barbados Community College</b>
<b>BIDC</b>	<b>Barbados Investment and Development Corporation</b>
<b>BMA</b>	<b>Barbados Manufacturers Association</b>
<b>BNSI</b>	<b>Barbados National Standards Institution</b>
<b>CZMU</b>	<b>Coastal Zone Management Unit</b>
<b>DEM</b>	<b>Department of Emergency Management</b>
<b>EPD</b>	<b>Environmental Protection Department</b>
<b>GAIA</b>	<b>Grantley Adams International Airport</b>
<b>GAS</b>	<b>Government Analytical Laboratory Services</b>
<b>GEF</b>	<b>Global Environmental Facility</b>
<b>GIS</b>	<b>Government Information Service</b>
<b>GPA</b>	<b>Global Plan of Action</b>
<b>GRULAC</b>	<b>Group of Latin American and Caribbean Countries</b>
<b>ICCM</b>	<b>International Conference on Chemicals Management</b>
<b>MEA</b>	<b>Multi-lateral Environmental Agreement</b>
<b>MDGs</b>	<b>Millennium Development Goals</b>
<b>NGO</b>	<b>Non-governmental Organization</b>

## List of Acronyms

OECD	Organisation for Economic Cooperation and Development
OELTWG	Open-ended Legal and Technical Working Group
PCB	Pesticides Control Board
PFC	Perfluorochemicals
QSP	Quick Start Programme
QSPTF	Quick Start Programme Trust Fund
RBPF	Royal Barbados Police Force
SAICM	Strategic Approach to International Chemicals Management
SJPP	Samual Jackman Prescod Polytechnic
SSA	Sanitation Services Authority
TOR	Terms of Reference
UNEP	United Nations Environment Programme
UNITAR	United Nations Institute for Training and Research
UWI	University of the West Indies
WHO	World Health Organisation
WSSD	World Summit on Sustainable Development

## 1 Introduction

Development of the Capacity Assessment was the second component of a project, which was spearheaded by the Environmental Protection Department, in conjunction with the United Nations Institute for Training and Research (UNITAR), to strengthen the mechanisms for chemicals management in Barbados. The project began in August, 2008 and was completed in November, 2009. The project had three phases:

- Updating a national profile on chemicals management in Barbados;
- Development of a capacity assessment; and
- Holding a national priority setting workshop.

On September 17, 2009 the Environmental Protection Department (EPD) of Barbados convened a National Priority Setting Workshop for the Strategic Approach to International Chemicals Management (SAICM). The objectives of the workshop were to:

- present the findings of the capacity assessment; and
- discuss and refine the proposed action plans to address the high and medium priority areas identified in the capacity assessment.

The following is a report of the proceedings of the meeting.

## 2 Opening Ceremony



**Prof. de Kruijf UNITAR (podium);  
Mr. Jeffrey Headley, Director, EPD;  
Dr. Janice Cumberbatch, Facilitator**

Mr. Jeffrey Headley, Director of the Environmental Protection Department, opened the workshop with welcoming remarks during which he acknowledged the participants' continued support for the critical process of chemicals management. He noted the importance of identifying mechanisms for minimizing the effects that chemicals have on health and the environment; and pointed out the role that the workshop could play in establishing a structure to receive relevant feedback on

how to minimize chemical exposure. He also stated that it was important to have environmental plans in place to carry out and address the proper handling of chemicals.

The Director noted that Barbados had done very well in the international arena with regards to representation in two important conventions, of which one was the Stockholm Convention on Persistent Organic Pollutants in relation to which he had been elected to the Executive Board to represent Latin America and the Caribbean. He went on to say that Barbados was the only Caribbean country to be awarded a bronze medal for its non-monetary contribution to the SAICM process since its inception. Mr. Headley concluded by saying that there was a need for continued support to make the environment safe via the proper management of chemicals.

Mr. Headley was followed by Professor H. A. M. de Kruijf of the United Nations Institute for Training and Research (UNITAR) who also offered opening remarks. He began by acknowledging Mr. Headley, the representatives of the various government ministries and public sector institutions, as well as the representatives from the private sector, civil society, the universities and other guests. He stated that the basic objective of the

Strategic Approach to International Chemicals Management (SAICM) was to protect human health and the environment. He also indicated that SAICM sought to facilitate inter-ministerial coordination, access to information, foster stakeholders' participation, set priorities in a coordinated manner, and mainstream chemical safety into national development plans.

The UNITAR representative went on to note that in February 2009 with the support of UNITAR, a workshop had been convened in Barbados to revise and endorse the updated National Profile on Chemicals Management, and to plan the development of a Capacity Assessment with the purpose of documenting existing capacities and gaps in infrastructure, government and stakeholder groups. This Capacity Assessment had now been finalized by the National Project Coordination Team and the document would be presented and discussed in the current workshop to prioritize actions, determine further steps needed, and identify stakeholders' involvement and commitment to sound chemicals management in Barbados.

He emphasised that this document also presented a number of priorities for chemicals management that required urgent action. Hence, the task for the workshop was to reach an agreement among government and stakeholders on priority actions. Prof. de Kruijf concluded by recognizing and thanking the Environmental Protection Department for the excellent work carried out so far, and the Quick Start Programme Trust Fund (QSPTF) of SAICM for kindly facilitating the funds for executing this important project. He then went on to note that Barbados and UNITAR had jointly submitted a project proposal to the QSPTF Round 7 entitled: *"Strengthening Capacities for SAICM Implementation and Supporting GHS Capacity Building in Barbados"* and that this project was pending approval by the SAICM Secretariat; the decision would be made in mid October.

Dr. Janice Cumberbatch, the workshop facilitator, then presented the participants with an overview of the workshop. Immediately after this Prof. de Kruijf returned to present the most recent developments on SAICM and ICCM-2.

## 2.1 Recent Developments on SAICM and ICCM-2



**Prof. de Kruijf, UNITAR**

Prof. de Kruijf began his presentation by defining SAICM and its purpose. He explained that SAICM was the Strategic Approach to International Chemicals Management and that it was a global policy framework to support the efforts to achieve by 2020, the production and use of chemicals in a way that would lead to the minimization of significant adverse effects on human health and the environment (World Summit on Sustainable Development, (WSSD), Johannesburg).

He highlighted some of the recent SAICM events, in addition to SAICM Executive Board and QSPTF Implementation of Committee meetings. Since June 2006 several regional meetings had been held by the Group of Latin American and Caribbean Countries (GRULAC), namely those in Panama City in February 2008, Trinidad and Tobago in June 2008 (Regional Coordinating Committee), Viña del Mar in December 2008, and Barbados in March 2009 (SAICM Sub-Regional Workshop, Caribbean). He also noted that Mrs. Gillian Guthrie from Jamaica had been appointed focal point for GRULAC.

In terms of the Quick Start Programme Trust Fund, he noted that 57 projects had been approved so far receiving a total funding of 10 million US dollars, which he considered not a very large sum, however enough to develop some programmes. In addition, the first meeting of the Open-Ended Legal and Technical Working Group (OELTWG) and informal discussions on preparations for ICCM2 were held on October 2008 in Rome. The OELTWG was viewed as playing an important role in the future by discussing new ideas that may be taken up in the SAICM process.

Another important event he noted was the ICCM-2: Second International Conference on

Chemicals Management that was held from May 11-15 2009 in Geneva, Switzerland. This conference was attended by 800 participants, which included representatives from over 150 governments, intergovernmental organizations, NGOs, and industry. Some key agenda items for this conference were:

- New emerging policy issues
- Finance-related matters
- Reporting on progress

Prof. de Kruijf went on to note the outcomes from this conference. In relation to the new emerging policy issues he reported the following:

#### NEW EMERGING POLICY ISSUES

##### 1. Nanotechnologies and manufactured nanomaterials:

- Need to undertake further research;
- Requests to facilitate access to relevant information and share new information as it becomes available;
- Development of a report including issues of relevance to developing countries and countries with economies in transition;
- UNITAR, in collaboration with OECD, involved in the above activities.

Nanotechnology was considered a new issue that would demand attention as there was limited awareness of its environmental consequences. There was a need for research to determine the nature of such effects.

##### 2. Chemicals in products:

- Need for increased access to information on chemicals in products in the supply chain and throughout their life cycles;
- Implementation of a UNEP-led project to:

- ⇒ collect and review existing information on information systems on chemicals in products;
- ⇒ assess the information needs of different stakeholders, as different stakeholders may need different information;
- ⇒ develop recommendations for cooperative action.

There was a need to have information regarding the chemical before it was admitted to the market. There was a need to know about the composition of the chemical, where it was produced, where and how it would be disposed and what were the risks involved on its usage.

### 3. Electronic waste:

- Recognition that near-end-of-life and end-of-life electrical and electronic products were a growing concern in developing countries and there was an identified lack of capacity to safely handle those materials;
- Design of greener electronic and electrical products;
- Consideration of product stewardship and extended producer responsibility.

The UNITAR representative cautioned that the chemical composition of the product must be known in order to safely handle the material. He said that there was also the need to be clear on how to manage electronic waste; and that in order to design better and greener products the relevant experts would have to be involved in the designing process.

### 4. Lead in paint:

- Decision to establish a global partnership to promote the phasing out of lead in paints with the following objectives:
  - ⇒ Awareness raising on the toxicity of lead and on alternatives;
  - ⇒ Guidance and assistance to identify potential lead exposure;

- ⇒ Prevention programmes to reduce exposure;
  - ⇒ Promotion of national regulatory efforts;
  - UNEP and WHO to form a secretariat for the partnership
    - ⇒ Similar to the partnership regarding mercury there needed to be one that addressed lead and which would identify how lead infection occurred.
5. PFCs (*perfluorochemicals in e.g. Teflon, Gore-tex*):
- Further scientific research needed on environmental and health effects of PFCs;
  - Need to develop alternatives to PFCs;
  - Agreement to eliminate PFCs and to promote technologies transfer;
  - Development of stewardship programmes and regulatory approaches to reduce PFCs emissions and content in products;
  - Information gathering and information exchange activities;
  - Need to monitor emissions, environmental fate and transport, and exposure to PFCs.

#### FINANCE-RELATED MATTERS

Finance was also on the agenda of the ICCM-2. Issues discussed in relation to finance-related matters were the following:

- Research on economic and social costs of unsound chemicals management as well as on economic instruments that internalize external costs;
- Need for sustainable, predictable, adequate and accessible funding from all stakeholders to achieve SAICM objectives;

- Possibility to include the sound management of chemicals in GEF-5;
- QSP Trust Fund is open for voluntary contributions until ICCM3;
- Time limit for disbursement of QSP funds is the end of 2013;
- Evaluation of the QSP and the effectiveness/efficiency of its implementation.

Prof. de Kruijf stated that only governmental organizations can apply to the QSP Trust Fund, and that the QSP needed to be monitored to assess its full benefit.

#### REPORTING ON IMPLEMENTATION PROGRESS

In relation to the reporting on progress, the main recommendation was a proposal on modalities that contained the following three chapters:

- A. **Overall guidance** (how to respond to a questionnaire for data collection for performance indicators);
- B. **Indicators** (identification of 20 indicators organized into five SAICM objective groupings):
  - Risk reduction;
  - Knowledge and information;
  - Governance;
  - Capacity building and technical cooperation; and
  - Illegal international traffic;

*Collection of data would be done at the national level, but monitoring of progress would be at the regional and global levels. There should be agreed upon indicators so everyone could do it together.*

- C. **Preparation of reports** (first progress report to be completed by the end of 2011 so there was a little time yet to go).

Additional outcomes from this ICCM-2 conference were:

- The strengthening of national chemicals management capacities through the preparation of guidelines for SAICM national focal points; the establishment of national SAICM desks to ensure synergies with focal points of chemicals and waste-related Multi-lateral Environmental Agreements (MEAs); and the establishment of an inter-ministerial and inter-institutional committee for SAICM implementation;
- The inclusion of new activities in SAICM's Global Plan of Action (GPA) for which a procedure had already been approved. The criteria for proposals were:
  - ⇒ Relevance to SAICM's Overarching Policy;
  - ⇒ Adverse effects on human health and the environment;
  - ⇒ Consistency with and complementary to existing international policies or agreements.

Prof. de Kruijf concluded with an outlook into the future of ICCM by noting that ICCM-3 will be held in 2012; that the established intercessional bodies were to be provided with the necessary information to evaluate the progress made in the implementation of the SAICM; and that the WSSD had set a goal to achieve sound chemical management by 2020 as a benchmark for the success of the SAICM.

In the question and answer period that followed the presentation, one of the participants asked about the toxicity of copper in comparison to lead paint. Prof. de Kruijf replied that so far more evidence was required to prove that copper was toxic to humans. He also pointed out that lead had already been proven to be detrimental to people and other organisms. He explained that copper so far had only been proven to be toxic to aquatic systems; but added that while it might one day be proven to be toxic to humans, until then lead was the one that had been targeted.

### 3 Session 1: Capacity Assessment Overview and Priority Setting

#### 3.1 *Presentation on the Capacity Assessment Report*

The first session of the workshop commenced at 9:43 a.m. with a presentation by Mr. Philip Pile on the Capacity Assessment Report. Mr. Pile is the representative of the EPD responsible for the SAICM programme in Barbados. According to Mr. Pile, the development of the Capacity Assessment was the second component of a project which had been spearheaded by the Environmental Protection Department, in conjunction with UNITAR to strengthen the mechanisms for chemicals management in Barbados.

The project began in August, 2008 and was scheduled to be completed in November 2009. The project had three phases:

- Updating a national profile on chemicals management in Barbados;
- Development of a capacity assessment; and
- Holding a national priority setting workshop.

During the first phase of this project an assessment of the existing infrastructure for the sound management of chemicals was made. A document was produced with the contribution of the various stakeholders including workshop attendees, which had now been sent to Cabinet for approval.

During the second phase a Capacity Assessment was developed which identified existing issues relating to chemical management and was a valuable tool for prioritizing these issues so that focus could be placed on those activities that would address the national needs and priorities.

During this third phase, the priority setting workshop, stakeholders had been brought together to develop action plans to address the priority areas. Mr. Pile went on to note that information for the Capacity Assessment had been compiled during a workshop hosted on February 5, 2009 which had helped to prioritize actions, and also from interviews with stakeholders. In both cases the information was collected using the worksheets and

guidance documents provided by UNITAR.

Mr. Pile went on to present an overview of the Capacity Assessment and noted that it had two main sections:

1. Assessing issues pertaining to governance for the sound management of chemicals; and
2. The identification of urgent and important chemicals management issues

In order to assess the issues pertaining to governance, the category of governance was divided into five areas:

1. Integrating chemicals management into national development priorities;
2. Sound institutional and programmatic national framework;
3. Legislation and enforcement;
4. Participation of the private sector and civil society; and
5. International cooperation.

Each of these areas was further divided in sub-areas. For each sub-area, stakeholders were asked to rate the level of existing capacity and the urgency and importance of taking action as High, Medium or Low. The significance of these ratings is shown in Table 1:

Table 1: Significance of the Rating Used to Assess the Level of Existing Capacity and the Urgency and Importance of Taking Action

Rating	Level of Existing Capacity	Urgency and Importance of Taking Action
High	Existing capacity is adequate	Urgent action is required immediately
Medium	Some capacity exists but is not being effectively utilized	Action is required but in the medium term (3 – 5 years)
Low	Limited to no capacity exists	Action is required but in the long term (6 -10 years)

The category of identification of urgent and important chemicals management issues was divided into four areas:

1. Information generation;
2. Risk management;
3. Information exchange, education and training; and
4. Chemical emergency prevention and control.

These were then further broken down into sub-areas and rated. Stakeholders were asked to prioritise these sub-areas as they related to chemicals management as High, Medium and Low.

Mr. Pile proceeded to summarize the findings of the Capacity Assessment in terms of governance as follows:

1. *Integrating chemicals management into national development priorities:* The urgency in taking action was identified as High and the level of existing capacity was identified as Low. Thus urgent action was required as limited or no capacity existed in relation to the mechanisms for the integration of chemicals management into development priorities.

2. *A sound institutional and programmatic national framework:* The setting of national priorities; programme and project planning and the establishment of effective financing mechanisms was deemed to be of High priority for action, even though the level of existing capacity was rated as Medium. Similarly, monitoring and evaluation and promoting participation of regional authorities were deemed to be of Medium priority and the level of existing capacity was rated as Medium. The stakeholders felt that establishing an inter-institutional coordination mechanism as well as information exchange mechanisms were of High urgency, but assessed the existing capacity to do this to be Low.
3. *Legislation and enforcement:* There was a need for urgent and immediate action in terms of legislation, regulations, policies, and general enforcement capacities; legislation and policies that regulate pesticides; and policies for pollution prevention, and cleaner production but there was limited or no capacity to address these issues.
4. *Participation of the private sector and civil society in chemicals management:* Voluntary initiatives in the private sector and the capacities of civil society were determined to be of Medium level importance and the stakeholders acknowledged that some capacity existed but was not being utilized effectively. However, they felt that urgent and immediate action was needed with regards to stakeholder participation especially since they determined that the existing level of capacity was limited or non-existent.
5. *International cooperation related to chemicals management:* Capacity was determined to be of Medium level but it was not being properly utilized especially for implementing chemicals management related MEAs and studying and resolving chemicals management issues that had trans-boundary dimensions.

With respect to the urgent and important chemicals management issues, the second

section of the Capacity Assessment, most areas related to chemicals management required urgent action. Mr. Pile presented the following data to illustrate this fact:

### Information Generation

Sub-Area	Urgency & Importance of Taking Action
Chemical Risk Assessment	High
Research and Laboratory Capacities	High

### Risk Management for Chemical Safety

Sub-Area	Urgency & Importance of Taking Action
Adequate Legislation	High
Promote Safer Alternatives	High
Highly toxic chemicals and chemical of global/ regional/national concern.	High
Safe Handling, Use, Storage, and Transportation of Pesticides.	High
Safe Use, Storage, and Transportation of Industrial Chemicals.	High
Chemical Safety in the Workplace	High
Cleaner Production	Low (Government) Low-Medium (Civil Society)
Waste Management	High

### Information Exchange, Education and Training

Sub-Area	Urgency & Importance of Taking Action
Information Exchange	High
Education/Awareness Raising	High
Training	High

### Chemical Emergency Prevention and Control

Sub-Area	Urgency & Importance of Taking Action
Chemical Emergency Planning	High
Chemical Emergency Response	High
Chemical Emergency Follow-up	High

Mr. Pile concluded his presentation by noting that during the development of the Capacity Assessment, stakeholders were asked to suggest actions that could be taken to address the various chemicals management issues and that these actions now had to be refined and the order in which they would be implemented had to be prioritized.

### **3.2 Presentation of the Methodology for Priority Setting**

Prof. de Kruijf commenced his explanation of the methodology for priority setting by reiterating the goal of the workshop, which was to agree on and prioritise an initial list of actions based on the SAICM Capacity Assessment. He explained that his presentation was a theoretical approach intended as a guideline to the process that would be used in the workshop. He indicated that he would cover the following in his presentation:

- Understand the context and timeframes;
- Develop criteria for prioritization;

- Apply criteria for initial selection; and
- Next steps.

The UNITAR representative explained that prioritizing made sense when:

- There were too many issues of high concern;
- There was not enough capacity;
- If funds were limited; and
- If actions were strongly required (e.g. international conventions).

He explained that the delimitation of priorities not only required a concern about an issue, but also the possibility of support, i.e., financial resources and facilitation.

***Interest + Support = Action***

He further noted that medium priority combined with support could also lead to an Action. He proceeded to present the impulse chain reaction diagram and explained that an impulse or driving force could cause pressure on the environment, which could prompt a response. However, long-term actions were needed for the response to be more preventive than curative.

Prof. de Kruijf then moved on to address the development of criteria for prioritization by noting that it was necessary to utilize the factors/criteria that determined potential interest and support for possible activities or actions. It was also strongly suggested that these criteria be formulated in positive terms. For example:

<b>Negative (not recommended)</b>	<b>Positive (recommended)</b>
"Lack of knowledge"	"Potential for improving knowledge"
"Threats to the environment/ health"	"Potential for reducing threats to the environment/ health"

Another recommendation was to evaluate what was feasible for considered action, and he presented the following example:

- Possible criteria (formulated in positive terms):
  - ⇒ Availability of resources: human, financial, technical;
  - ⇒ Availability of a lead organization that was ready to facilitate action;
  - ⇒ Possibility of synergies among different stakeholders;
  - ⇒ Efficiency in relation to expenditures (e.g. the existence of “low-hanging fruits”) – what can be easily achieved with little effort;
  - ⇒ Availability of alternatives - which will help show donors our efforts;
  - ⇒ Potential for obtaining information for decision making;
  - ⇒ Potential for obtaining results within 5 years.

Also in developing criteria he noted that it was important to consider which other factors could influence an action. For example:

- Compatibility with other priorities (national/international);
- Potential for reducing threats to the environment/health;
- Potential for improving knowledge about such threats;
- Potential for reducing distribution inequalities among the population;
- Potential for reducing political or public concerns.

In regards to applying criteria with a 1-5 scale where 1 is minimal and 5 is best, he presented the following example as a simple and practical way to prioritize:

Activity or Action	Reducing threats to	Availability of resources	Efficiency	Sum
Undertake a risk	3	1	3	7
Develop information systems	4	1	5	10
Implement an awareness raising campaign	4	2	4	10
Mainstream into national development plans	4	3	5	12

The next step in the analysis was pondering the criteria, and in so doing he posed the following questions:

- How can we integrate different degrees of importance for criteria? Or how can we better differentiate?
- What do we do when there are still too many possibilities (actions) for reducing threats to health and the environment, but there is for example, limited availability of resources?

In answer to these questions, Prof. de Kruijf pointed out that stakeholders would need to discuss and agree about the problem of too many possibilities, and then go to a multi criteria analysis. Different weights can be given to each criterion, however, one needed to be careful when assigning weight so as not to manipulate the outcome. Prof. de Kruijf used the following example to illustrate the impact that weighting could have on the prioritization of actions:

Activity or Action	Reducing threats to health Weight=5	Availability of resources Weight=3	Efficiency Weight=1	Un-weighted Sum	Weighted Sum
Undertake a risk assessment	$3*(5)=15$	$1*(3)=3$	$3*(1)=3$	7	21
Develop information	$4*(5)=20$	$1*(3)=3$	$5*(1)=5$	10	28
Implement an awareness raising campaign	$4*(5)=20$	$2*(3)=6$	$4*(1)=4$	10	30
Mainstream into national development plans	$4*(5)=20$	$3*(3)=9$	$5*(1)=5$	12	34

Prof. de Kruijf then presented the assignment for the working groups stressing that ideally the groups should be composed of members from different sectors and institutions. The directions were to:

1. Agree on the criteria. (As assigned by Dr. Cumberbatch)
2. Give weight to the criteria. (*if needed*)
3. Take the list of actions as indicated by Dr. Cumberbatch.
4. Carry out the analysis and prioritize 3-5 actions per group.

This exercise was to be followed by a plenary where the resulting list of priorities would be checked against the original criteria and factors mentioned in this presentation (e.g. feasibility, influence) as well as against the SMART criteria.

Prof. de Kruijf concluded his presentation by presenting a guideline to help determine future steps in the prioritizing exercise.

<b>Duration</b>	<b>What/Who</b>	<b>Activities</b>
Day	Workshop	Examples, suggestions for the National Profile and Capacity Assessment
Months	Environmental Protection Department	Finalize Profile and Assessment Priority Setting
Years	Government	Policy on Chemical Safety; Selected priority projects; Contacting donors
Decades	All	1. Plans, institutions, legislation, inventories, research 2. Management and implementation

The first coffee break of the day took place between 10:10 am and 10:32 am.

### 3.3 Preliminary List of Prioritization Criteria

The facilitator explained the prioritization criteria. She commenced by reminding the participants of the first workshop where the chemicals management situation in Barbados had been assessed and activities had been identified. She explained that it was out of this process that the Capacity Assessment report had been prepared. She went on to explain that for the purpose of this current workshop the list of activities would be prioritized and action plans developed to further the achievement of the goals of chemicals management.

Dr. Cumberbatch went on to tell the participants that the activities had been organized according to the four objectives that were embedded in the Overarching Policy Strategy of SAICM:

1. Risk reduction
2. Knowledge and information
3. Governance
4. Capacity building and technical cooperation

She told the participants that the working groups would rank the activities using the following criteria:

1. *Can be achieved without foreign aid: can be implemented with existing human, financial and technical resources.*

This was described as those activities which could be started with the resources already available. Participants were also told that they could identify any area that they considered “imperative”, i.e. without which chemicals management would be impossible. However, the facilitator said it was important to realize that “the imperative” could only be invoked once. Everyone agreed on this criterion.

2. *Enhances cooperation between Government, the private sector and civil society at the national level (e.g. incorporation into national development goals)*

This dealt with activities that enhanced partnerships and could be incorporated into

development goals. There was agreement on criterion number two.

3. *Promotes lifecycle management of chemicals to minimize risks to human health and the environment*

This criterion dealt with the ability to holistically manage chemicals.

4. *Ease of implementation: can be achieved within a year with minimal effort (“picking low hanging fruit”)*

This addressed whether the activity can be implemented with minimum effort and completed quickly.

5. *Imperative but impossible without external aid*

There was some discussion on the criteria and one participant suggested that Criterion 1 and 4 could be combined. Another participant suggested that the time frame in Criteria 4 could be changed from “within a year” to short term and that short-term should be defined as 1 - 3 yrs. She also suggested that the group could consider not placing a time frame on it but if the action could be started then it be so noted. It was pointed out that there were some actions that could possibly commence but there might not be a definitive time frame for completion.

There was further discussion on the criteria and one participant mentioned that there should be clarification between the words urgent and imperative. Prof. de Kruijff offered some clarification.

The facilitator asked if anyone wished to recommend a sixth criteria, but the participants determined that the five as stated were adequate.

Dr. Cumberbatch then explained the procedure to be used in the working groups. Participants were divided into 4 groups with one rapporteur being assigned to each group. She said that there needed to be diversity in the group composition, and that the goal was to avoid persons from the same agency or industry being in the same group. She indicated that each group could independently decide, if needed, to apply weighting to the criteria

depending on the nature of the discussion. If weighting was applied however, a rationale had to be provided to explain the purpose and use.

### **3.4 National Priorities for Chemicals Management**

The participants were divided into the following four (4) working groups:

#### **Group A: Risk Reduction**

<b>Toni Manning</b>	<b>McBride Caribbean Limited</b>
<b>Gerald Anthony</b>	<b>Barbados National Terminal Company Limited</b>
<b>Debbi Layne</b>	<b>Sustainable Barbados Recycling Centre (SBRC)</b>
<b>Dianne Dennis</b>	<b>Sanitation Services Authority</b>
<b>Adrian Millington</b>	<b>Barbados Manufacturers Association</b>
<b>Ron Goodridge</b>	<b>Ministry of the Environment</b>
<b>Hayden Ryhnd</b>	<b>Barbados National Standards Institute</b>

#### **Group B: Strengthening Knowledge and Information**

<b>Mark Welch</b>	<b>Environmental Protection Department</b>
<b>Fabian Scott</b>	<b>Barbados National Standards Institution</b>
<b>Brian Reece</b>	<b>Barbados Light and Power Company Limited</b>
<b>Nia Salankey</b>	<b>Occupational Health and Safety Department</b>
<b>Marlon Grant Lewis</b>	<b>Barbados Agriculture Society</b>
<b>Michelle Hacckett</b>	<b>Berger Paints Barbados Limited</b>
<b>Sophia Marshall</b>	<b>Government Analytical Services</b>

**Group C: Governance Strengthening of Institutions, Law and Policy**

Ricardo Gittens	Barbados Fire Service
Denise Haddock	Barbados Statistical Service
Keith Ratcliff	Royal Westmoreland Golf Club
Joseph Peltier	Inter-American Institute for Co-operation and Agriculture (IICA)
Ryan Johnson	Berger Paints
Trevor Millington	Chemical Industries Limited
Philip Pile	Environmental Protection Department
Velma Young	Customs and Excise Department

**Group D: Enhancing Capacity Building**

Renata Goodridge	Centre for Resource Management and Environmental Studies
Stephen Forde	Environmental Protection Department
Litta Paulraj	Food and Agriculture Organisation
Yolanda Edwards	Chemical Industries Limited
Wayne Walrond	National Union of Public Workers
Dane Coppin	Ministry of Finance
Ronald Chapman	Ministry of Health

The following are the results of the prioritisation process undertaken by the working groups. Activities highlighted in bold print were determined to be the priority actions for which action plans would be developed. In addition, imperatives are identified by shading.

**A. MEASURES TO SUPPORT RISK REDUCTION**

	<b>Actions</b>	<b>Priority Criterion 1</b>	<b>Priority Criterion 2</b>	<b>Priority Criterion 3</b>	<b>Priority Criterion 4</b>	<b>Priority Criterion 5</b>	<b>Total</b>
<b>1</b>	Identify alternatives to traditional chemicals and processes	3	2	4	1	3	13
<b>2</b>	Promote safer alternatives for toxic substances and substances of high concern	5	3	4	3	3	18
<b>3</b>	Incorporate into the EIA process the evaluation of the proposed activity against alternatives	4	2	3	1	2	12
<b>4</b>	Offer incentives or concessions to encourage cleaner production	3	3	3	4	4	17
<b>5</b>	Develop and implement standards for waste management	3	4	4	2	3	16
<b>6</b>	Publicize existing plans as to emergency planning	4	3	1	2	2	12
<b>7</b>	Review and if necessary adapt existing emergency plans	4	2	3	3	3	15
<b>8</b>	Conduct an assessment of medical facilities with regard to emergencies	4	3	2	3	1	13
<b>9</b>	Conduct simulation exercises for emergency responses	3	2	4	3	3	15

**B. STRENGTHENING KNOWLEDGE AND INFORMATION**

<b>Actions</b>	<b>Priority Criterion 1</b>	<b>Priority Criterion 2</b>	<b>Priority Criterion 3</b>	<b>Priority Criterion 4</b>	<b>Priority Criterion 5</b>	<b>Total</b>
1 Consider implementation of the Globally Harmonised System of Classification and Labelling of Chemicals	5 x 4	3 x 2	1 x 3	5 x 5	1 x 1	54
2 Include Risk assessments in EIA process	4 x 4	2 x 2	5 x 3	4 x 5	1 x 1	56
3 Increase public awareness regarding the safe use and handling of pesticides and hazardous chemicals	5 x 4	4 x 2	5 x 3	2 x 5	2 x 1	55
4 <b>Encourage reduction and reuse of waste through sharing of information</b>	5 x 4	4 x 2	5 x 3	3 x 5	2 x 1	<b>60</b>
5 Identify most effective methods of raising public awareness	5 x 4	3 x 2	1 x 3	5 x 5	1 x 1	55
6 <b>Develop and deliver relevant public awareness programmes</b>	5 x 4	4 x 2	5 x 3	3 x 5	2 x 1	<b>60</b>
7 Encourage stakeholder participation in awareness raising	4 x 4	4 x 2	4 x 3	2 x 5	1 x 1	45
8* <b>Set up a chemicals management committee with regard to information exchange</b>	5 x 4	5 x 2	3 x 3	5 x 5	1 x 1	<b>65</b>

\*Action 8 was determined to be imperative.

Rationale for weighting of actions related to strengthening knowledge and information:

Upon review of the final scores the participants opted to employ the weighting option. This decision was based on two main factors:

1. Final sums were too close to each other: scores ranged between 15 and 19, with 15 and 19 appearing 3 times each.
2. Action 8, which group members considered to be the imperative, did not yield the highest score.

After discussion, consensus was reached on the following scale:

**Weighting Scale:**

Criteria Numbers	Assigned Weight
1	4
2	1
3	3
4	5
5	2

This translates into the group valuing the easiness of an action to be the highest ranked in that the easier actions should be the ones performed first. Second priority was given to actions that can be performed using existing resources (human, financial, and technical). Third priority was given to actions that promote lifecycle management of chemicals to minimize risks to human health and the environment. Fourth priority was given to actions that are imperative and cannot be performed without foreign aid. Lastly, fifth priority was given to actions that enhance cooperation between government, the private sector, and civil society at the national level.

After weighting the scores, the group agreed that the final scores accurately reflected the actions they considered to be the top three priority actions, which were:

Action 8. Setting up a chemicals management committee with regard to information exchange;

Action 6. Developing and delivering relevant public awareness programmes; and

Action 4. Encouraging reduction and reuse of waste through sharing of information.

They further identified Action 8 as the imperative action since without a committee to bring stakeholders on board all the other priorities actions would not be possible. The focus for Action Planning for Group B would therefore focus firstly on setting up a chemicals management committee with regard to information exchange. This committee would work in developing and delivering relevant public awareness programmes. In so doing the committee would be in charge of identifying the most effective methods of raising awareness as well as encouraging stakeholder participation in awareness raising. Another main function of this committee would be to encourage reduction and reuse of waste through sharing of information.



**Working group in session. External evaluator, Mrs. Natalie Hutchinson observes the proceedings**

**C. GOVERNANCE: STRENGTHENING OF INSTITUTIONS, LAW AND POLICY**

<b>Actions</b>	<b>Priority Criterion 1</b>	<b>Priority Criterion 2</b>	<b>Priority Criterion 3</b>	<b>Priority Criterion 4</b>	<b>Priority Criterion 5</b>	<b>Total</b>
<b>1</b> Revise / amend current legislation to incorporate liability and compensation	5	4	4	2	1	<b>16</b>
<b>2</b> Develop a programme to enforce existing legislation	5	4	4	4	1	<b>18</b>
<b>3</b> Enact Safety and Health at Work Act and the Environmental Management Act	4	4	4	3	2	<b>17</b>
<b>4</b> Strengthen the Pesticides Control Board	4	3	4	3	1	<b>15</b>
<b>5</b> Develop management policy for hazardous materials	4	4	5	3	4	<b>20</b>
<b>6</b> Import ideas with regard to waste management	4	4	4	4	2	<b>18</b>
<b>7*</b> Set up a chemicals management committee to oversee strengthening of institutions, law and policy development	4	4	4	4	2	<b>18</b>
<b>8</b> Explore the possibility of allocating funds under a Ministry or Department to support projects and initiatives related to chemicals management	4	2	5	4	2	<b>17</b>

\*Action 7 was determined to be imperative.

The group selected action 7 as their imperative. They considered that should this action be done successfully, actions 1, 2 and 5 would follow. In order to rank the actions to define their priority, the group's first consideration was what was achievable without the need of external assistance; these were afforded a high priority. The Group did not necessarily chose the activities with the highest ranking but chose instead to link activities, whereby all of the selected ones feed into each other and in the end would aid in the development of a strong chemicals management plan.



**Working group in session**

## D. ENHANCING CAPACITY BUILDING

	<b>Actions</b>	<b>Priority Criterion 1</b>	<b>Priority Criterion 2</b>	<b>Priority Criterion 3</b>	<b>Priority Criterion 4</b>	<b>Priority Criterion 5</b>	<b>Total</b>
1	Assess the existing research and laboratory capacities to identify areas for strengthening and develop strategies to strengthen these areas.	3	3	2	5	4	17
2	Use governmental facilities to conduct more research pertaining to chemicals	2	3	4	2	2	13
3	Conduct training with regard to safe handling and storage (and use) of pesticides (agrochemicals)	5	5	5	5	1	21
4	Encourage use of a Code of Conduct as to the safe handling and storage of pesticides (agrochemicals)	5	5	5	5	1	21
5	Develop guidance for the storage, handling (and use) and transport of chemicals	5	5	5	5	2	22
6*	Facilitate training opportunities	3	4	5	2	5	19

\* - Action 6 was determined to be imperative

The final action, facilitation of training opportunities was classified as the imperative.

Following this exercise a lunch break was taken. Upon return, the groups presented their results in a plenary and there was consensus on the activities that had been prioritised by each group for action.

## **4 Session 2: Planning of a National Programmatic Framework for the Sound Management of Chemicals and Mainstreaming Chemicals Management into National Development Plans**

This session commenced with a brief video presentation by Professor de Kruijf of an explosion at a plant in Albania which resulted in the death of 27 people and injured many others. He also gave examples of other unfortunate incidents and used these to emphasise the need for emergency planning.

One participant supported the need for proper emergency response and gave an example of his experience in a large warehouse which was used for chemical storage. He reported that there was a problem with the air conditioning and a technician was summoned to handle the matter. The technician lit a torch in order to effect repairs, obviously without thought for the content of matter stored in the warehouse. He advised the technician to extinguish the torch because of the nature of the immediate environment.

### ***4.1 Recommendations for Mainstreaming Chemicals Management Into National Development Plans***

The Professor continued the workshop by giving an outline of his presentation on recommendations for mainstreaming Chemicals Management into National Development Plans. The presentation focused on challenges and response; linkages between the Millennium Development Goals (MDGs) and chemicals issues; other linkages (agriculture, industry, planning); the benefits of mainstreaming and integration.

In his examination of the challenges, Prof. de Kruijf referred to the 1990s where there was a growing concern about the lack of priorities and clear objectives in the provision of development aid. He also mentioned the challenges posed to national development planning, namely:

- How to integrate, that is, mainstream sound management of chemicals into national strategies, and thereby inform development assistance cooperation priorities?
- How to qualify links between major priority chemicals management problem areas

and human health and environmental quality?

He stated that in response to this the MDGs were formulated with a focus on poverty eradication as the theme of development. In addition, the speaker pointed out that there was the recognition of the need to commit the international community to an expanded vision of development: one that promoted human development.

With specific respect to mainstreaming chemicals management in the context of human development, Prof. de Kruijf pointed out that chemicals had the potential for both positive and negative impacts. He emphasized the necessity to strengthen the basic elements of the national infrastructure for chemicals management which would allow countries to maximize benefits so that chemicals could then contribute to sustainable development. He spoke of the need to identify linkages between chemicals management and sustainable development as well as to identify the best opportunities to influence national development planning.

Prof. de Kruijf continued by outlining linkages between the MDGs and chemical issues. Some of these were:

1. To eradicate extreme poverty and hunger:- the poor were at higher risk of exposure to toxic and hazardous chemicals due to their living locations, occupations and lack of knowledge about chemicals. Sound chemicals management could therefore improve their living environment (and consequently their health) and help increase their revenue (e.g. proper pesticide use can boost crop yields and protect the productivity of freshwater and marine fisheries)
2. To achieve universal primary education:- the knowledge of science at primary level would lay the foundation for secondary and tertiary levels. Also awareness raising about issues such as chemical safety could reduce the occurrence of chemical-related accidents.
3. Promote gender equality and empower women:- women, being the primary caretakers, food preparers, and gatherers of fuel used in the household, were disproportionately affected by indoor air pollution, and water/food-borne illnesses.

- Women's empowerment and knowledge of proper storage, handling, and disposal of chemicals within the home could help them to protect themselves and their families.
4. Reduce child mortality: - chemicals (in medications) play a major role in controlling vector borne diseases, such as malaria (which is the number one cause for child mortality in developing nations). Children may be exposed to chemicals through agricultural works, in their homes, and their living environment. Sound chemicals management combined with better nutrition could improve children's working and living conditions, decrease their sensitivity to chemicals, and reduce child mortality.
  5. Improve maternal health:- certain types of chemicals could build up to dangerous levels in humans causing adverse reproductive, developmental, immunological, hormonal, and carcinogenic effects. Women could pass as much as 1/5<sup>th</sup> of their toxic burden to their infant children, both prenatally and after birth. Improved chemicals management could lower a woman's risk of contamination, improve maternal health, and therefore the health of future generations.
  6. Combat HIV/AIDS, malaria and other diseases:- malarial medications (prophylactics) and other chemical products (e.g. treated mosquito bed nets) prevent millions of deaths worldwide from this disease. Chemicals (medications) are helping to control HIV/AIDS and prevent mother-to-child transmission.
  7. Ensure environmental sustainability:- chemicals could contribute to global warming, ozone depletion, and climate change, and could be major contributors to environmental degradation through the contamination of water, soil, air, and flora and fauna. Sound chemicals management could help prevent and/or minimize harmful chemicals entering the environment and reduce the need for difficult and costly environmental remediation.
  8. Global partnership for development:- international cooperation and coordination efforts towards improved chemicals management, such as SAICM and chemicals-related MEAs, create global partnerships, efforts, and initiatives that help countries integrate sound chemicals management objectives into national and local

development policies and plans.

The speaker went on to mention the linkages between chemicals and agriculture, industry and development planning. These included:

- Agriculture: improving yield and quality using fertilizers; pesticides to protect seeds, crops, and harvested products; food storage; threats to indigenous practices; misuse can have chronic health effects on farmers; POPs pesticides can pose significant threats to health and environment (e.g. affecting fertility, carcinogenic, harm freshwater and land productivity);
- Industry: various industrial production; exposure to chemicals in the workplace; poorly controlled pharmaceutical products;
- Development planning:
  - ⇒ Exposure to toxic wastes:
  - ⇒ Pesticides and fertilizer run-off, industrial effluent, and toxic wastes contaminating water
  - ⇒ Contaminated materials, such as containers and drums, used for informal housing, water storage, as cooking utensils, etc.
  - ⇒ Dumping of wastes which reduce land productivity and damage ecosystems
  - ⇒ Uncontrolled chemical hazards reduce economic turnover through damage to human health and ecosystems

Prof. de Kruijf then focused on the benefits of mainstreaming. He stated that these included raised awareness and enhanced buy-in from a wide range of government and key stakeholders, including national development planning agencies. It also resulted in strengthened focus on improved cross-sectoral governance for sound chemicals management at national and local levels (rather than addressing chemicals on a chemical-by-chemical or chemical class basis exclusively). He noted that mainstreaming was critical

for attracting national and international support for the sound management of chemicals.

Regarding integration, the speaker recommended that a cross-sectoral, interagency coordinating mechanism be established and that development, planning, and finance ministries be involved in national chemicals management. He urged the development of plans for addressing national chemicals management priority issues and the development of a qualitative rationale for mainstreaming the highest priority chemicals management issues in national development plans. In this regard he suggested that the participants consider:

- National sustainable development strategy
- Poverty reduction strategy paper
- Integrated resource mobilization strategy

The presenter concluded his presentation by giving the participants some questions to ponder:

1. How might activities to manage chemicals contribute to national development objectives?
2. What can be done to alert ministries not directly concerned with chemicals management to the importance of chemicals management for sustainable development?
3. How can linkages between chemicals management and sustainable development be integrated into national development planning, as well into long-term frameworks for bilateral and multilateral development assistance?

#### **4.2 Action Plans for National Programme Framework**

Following this presentation, the facilitator outlined the rest of the afternoon's programme. She explained that as a continuation from the priority setting working groups in the morning session, they now had to develop the action plans for the prioritised activities, by identifying the following data for each activity:

- Lead Agency
- Other Stakeholders
- Required Steps
- Timeframes
- Other Required Resources
- Mechanisms for Monitoring Progress
- Indicators of Success

The action plans developed by the four working groups are summarised in the tables that follow.

**ACTION PLAN FOR MEASURES TO SUPPORT RISK REDUCTION**

Activity	Lead Agency	Other Stakeholders	Required Steps	Time Frame	Other Required Resources	Mechanism for Monitoring Progress	Indicators of Success
<b>Develop and implement standards for waste management</b>	BNSI	<ul style="list-style-type: none"> <li>• EPD</li> <li>• Solid Waste Management Unit</li> <li>• Sustainable Barbados Recycling Centre</li> <li>• SSA</li> <li>• B.W.A</li> <li>• Ministry of Education</li> <li>• UWI</li> <li>• All Laboratories</li> <li>• Oil and gas industry</li> </ul>	Literature review of International standards.	3 Months	<ul style="list-style-type: none"> <li>• Creation of a Project Team from the stakeholder units</li> <li>• Consultants</li> <li>• Technical and financial assistance</li> </ul>	<ul style="list-style-type: none"> <li>• Quarterly reporting</li> </ul>	<ul style="list-style-type: none"> <li>• Published standards should be available in a timely manner.</li> <li>• A working document should be produced at the end of 18 months.</li> </ul>
			Meet with the stakeholders who generate chemical waste and conduct an audit of these chemical waste generators.	1 year			
			List the findings and conduct an audit and analysis. Prioritise the findings of the analysis	3 months			

**ACTION PLAN FOR MEASURES TO SUPPORT RISK REDUCTION**

Activity	Lead Agency	Other Stakeholders	Required Steps	Time Frame	Other Required Resources	Mechanism for Monitoring Progress	Indicators of Success
<p><b>Actions 2 &amp; 4 were combined (pg.21)</b></p> <p><b>(2) Promote safer alternatives for toxic substances and substances of high concern.</b></p> <p><b>(4) Offer incentives or concessions to encourage cleaner production.</b></p>	<p>EPD</p>	<ul style="list-style-type: none"> <li>Ministry of Health, Ministry of Agriculture, Barbados Government Information Services</li> </ul>	<ul style="list-style-type: none"> <li>Creation and roll-out of public awareness programmes.</li> <li>Provision of funding which could be made available by tax levy</li> <li>Provision of tax incentives.</li> </ul>	<p>1 year</p>	<ul style="list-style-type: none"> <li>International funding</li> </ul>	<ul style="list-style-type: none"> <li>Public surveys</li> <li>Monitoring emissions etc.</li> <li>Testing</li> </ul>	<ul style="list-style-type: none"> <li>Compilation and analysis of survey results</li> <li>Observation of use of the alternatives</li> <li>Observing and recording the number of applications for concessions</li> <li>Observation of any increases in the number of players in the market</li> </ul>

This group decided that there was a need to develop an action plan for implementation of the standards for waste management as a subset of this activity.

	<b>Required Steps</b>	<b>Time Frame</b>	<b>Monitoring Mechanisms</b>
<b>Action Plan for Implementation of Standard</b>	1. Disseminate standards to stakeholders in the form of Town Hall Meetings.	3 months	Record feedback of Town Hall meetings
	2. Make the document available for review	1 month	
	3. Amend the standards if needed.	1 month	
	4. Disseminate the amended version		
	5. Present the document to cabinet for review	12 months	
	6. Develop legislation.		

**ACTION PLAN FOR STRENGTHENING KNOWLEDGE AND INFORMATION**

Activity	Lead Agency	Other Stakeholders	Required Steps	Time Frame	Other Required Resources	Mechanism for Monitoring Progress	Indicators of Success
Set up a chemicals management committee with regard to information exchange	EPD	<ul style="list-style-type: none"> <li>• Ministry of Finance</li> <li>• Ministry of Agriculture</li> <li>• Ministry of Health</li> <li>• Labour Department</li> <li>• CTUSAB</li> <li>• Department of Emergency Management</li> <li>• Customs</li> <li>• UWI</li> <li>• BAS</li> <li>• BMA</li> <li>• GAS</li> </ul>	<ol style="list-style-type: none"> <li>1. Meet with agencies to secure their participation.</li> <li>2. Set a constitution</li> <li>3. Send to Cabinet with required justification which includes an outline of powers of the committee for approval</li> </ol>	1 year	Funds/Budget Training	The completion of the required steps by a set date.	Committee convened. Constitution has been set. Approval from cabinet.

**ACTION PLAN FOR STRENGTHENING KNOWLEDGE AND INFORMATION**

Activity	Lead Agency	Other Stakeholders	Required Steps	Time Frame	Other Required Resources	Mechanism for Monitoring Progress	Indicators of Success
Develop and deliver relevant public awareness programmes	Ministry of Environment-EPD	<ul style="list-style-type: none"> <li>• GIS</li> <li>• Chemical Management Committee</li> <li>• Ministry of Education</li> </ul>	<ol style="list-style-type: none"> <li>1. Identify target population</li> <li>2. Identify the relevant areas of interest/ needs.</li> <li>3. Identify the most effective methods of raising public awareness.</li> <li>4. Encourage stakeholder participation.</li> <li>5. Set up a portal with information on chemicals.</li> </ol>	Initial development and delivery: 6 months Development and delivery have to be an ongoing exercise	Funding Human resources for surveys, etc. Technical resources	The completion of the required steps by a set date. Follow up survey to determine the increase in public awareness, 6 months after the delivery of the first programme	First delivery of awareness programme Evaluation and review of the ongoing programme Increase in public awareness

**ACTION PLAN FOR STRENGTHENING KNOWLEDGE AND INFORMATION**

Activity	Lead Agency	Other Stakeholders	Required Steps	Time Frame	Other Required Resources	Mechanism for Monitoring Progress	Indicators of Success
Encourage reduction and reuse of waste through sharing of information	EPD Ministry of Environment UWI (for technical assistance)	<ul style="list-style-type: none"> <li>Chamber of Commerce</li> <li>Chemical Management Committee</li> </ul>	<ol style="list-style-type: none"> <li>Find a host for the information portal.</li> <li>Set up portal.</li> <li>Set up a membership system to monitor access and content.</li> <li>Advertise the portal.</li> <li>Ongoing maintenance.</li> </ol>	18 months	<ul style="list-style-type: none"> <li>IT personnel for technical assistance</li> <li>Environmental officer to monitor the information in the portal</li> </ul>	<ul style="list-style-type: none"> <li>Launching of portal.</li> <li>Membership</li> </ul>	Reduction in request for hazardous waste disposal through EPD. Use of portal

**ACTION PLAN FOR GOVERNANCE: STRENGTHENING OF INSTITUTIONS, LAW AND POLICY**

Activity	Lead Agency	Other Stakeholders	Required Steps	Time Frame	Other Required Resources	Mechanism for Monitoring Progress	Indicators of Success
Set up a chemicals management committee to oversee strengthening of institutions, law and policy development	EPD to draft initial TOR and letters of invitations to be part of the committee	Min. of Health Min. of Agriculture Attorney General's Office Min. of Finance Town & Country Planning UWI BNSI	Establishing TOR for Chemical's Management Committee (commitment of members to task) Communicate TOR to all stakeholders.	3 – 6 months to be set up and to be run indefinitely	Secretariat Budget Political will Information sharing between stakeholders	Cabinet decision to establish committee made. Committee protocols established. Minutes of meetings. Communications sent	Actions plans Having budget allocated Quality of outputs of the committee Develop actions 1, 2 & 5

**ACTION PLAN FOR GOVERNANCE: STRENGTHENING OF INSTITUTIONS, LAW AND POLICY**

Activity	Lead Agency	Other Stakeholders	Required Steps	Time Frame	Other Required Resources	Mechanism for Monitoring Progress	Indicators of Success
Revise/amend current legislation to incorporate liability and compensation	Attorney General's Office	Ministry of Environment (GZMU, EPD) UWI Law	Analysis of present legislation Comparison with other countries Options for revision/ amendments Interviews with relevant informants	1 year	Legal Researcher Budget Public PR/ Communication	Draft legislations Intermediate reports	New/ amended legislations enacted

**ACTION PLAN FOR GOVERNANCE: STRENGTHENING OF INSTITUTIONS, LAW AND POLICY**

Activity	Lead Agency	Other Stakeholders	Required Steps	Time Frame	Other Required Re-sources	Mechanism for Monitoring Progress	Indicators of Success
Develop programme to enforce existing legislation	EPD Ministry of Labour	Coast Guard RBPF CZMU	Review existing legislation Investigate causes for non-enforcement of legislation and develop ways to address the issues.	3 – 6 months	Man power Training Assets (gear to enforce)	Draft Programmes	Programmes in place Reduction of infractions
Develop management policy for hazardous materials	Pesticide Control Board	EPD Ministry. of Health Ministry. of Agriculture	Research local management policies as well as those in other countries	1.5 – 2 year	Researchers Budget	Draft Policy document	Approved policy Reduction of entry of unwanted chemicals into the island

**ACTION PLAN FOR ENHANCING CAPACITY BUILDING**

Activity	Lead Agency	Other Stakeholders	Required Steps	Time Frame	Other Required Resources	Mechanism for Monitoring Progress	Indicators of Success
Facilitate training opportunities	Training Admin. Dept. (TAD) under Ministry of Civil Service for public sector and BIDC for private sector	EPD UWI BCC Samuel Jackman Prescod Polytechnic (SJPP) BIDC Ministry of Education Pesticide Control Board	Needs assessment Prioritisation Identification of resources Identification of training opportunities Implementation	Variable (depends on needs)	Trainers, financing, training facilities (structures/buildings) documentation training materials and storage facilities for materials	Reports, meetings	Established training courses and/or facilities

**ACTION PLAN FOR ENHANCING CAPACITY BUILDING**

Activity	Lead Agency	Other Stakeholders	Required Steps	Time Frame	Other Required Resources	Mechanism for Monitoring Progress	Indicators of Success
Develop guidance for the storage, handling (and use) and transport of chemicals	EPD	BNSI Ministry. of Agriculture Ministry. of Environment Ministry of Health Fire Department DEM Labour Department Police Customs & Excise Coast Guard Defense Force Barbados Port Inc GAIA	Comprehensive database of all chemicals and classifications along with safety data sheets, location and quantity  Develop a comprehensive emergency plan (including fire, spillage, evacuation, recovery)  Establish review committee	2 yrs to establish and reviewed and updated annually	Personnel, financing, equipment	Yearly review by a review panel of select stakeholders and production of report	Storage, handling, use and transport protocols in place at end of 2 yrs.

**ACTION PLAN FOR ENHANCING CAPACITY BUILDING**

Activity	Lead Agency	Other Stakeholders	Required Steps	Time Frame	Other Required Resources	Mechanism for Monitoring Progress	Indicators of Success
Conduct training with regard to safe handling and storage (and use) of pesticides (agrochemicals)	Min. of Agriculture	PCB UWI BCC SJPP BIDC GIS Media Ministry of Education Pesticide Control Board	Needs assessment Prioritisation Identification of resources Identification of who needs to be trained and what type of training needs to be done Implementation Evaluation and review of training programmes	Variable depending on needs	Trainers, financing, training facilities (structures, documentation and storage facilities), training materials and equipment	Examination; certification; assessment, review & evaluation of training programmes	Certification; Few reports of chemical-related incidents; inspections of facilities that carry chemicals

**ACTION PLAN FOR ENHANCING CAPACITY BUILDING**

Activity	Lead Agency	Other Stakeholders	Required Steps	Time Frame	Other Required Resources	Mechanism for Monitoring Progress	Indicators of Success
Encourage use of Code of Conduct as to the safe handling and storage of pesticides (agrochemicals)	Min. of Agriculture	PCB GIS Media RDC BADMG BMA BAS LWI BCC SJPP BIDC Ministry of Education Pesticide Control Board	Develop legislation to enforce the code of conduct Develop public awareness and training programmes and workshops to inform the public on the code of conduct. Develop an information hotline on pesticides	2-3 yrs.	Trained personnel (extension officers), user-friendly print and electronic media, marketing agencies	Survey of the use of the code of conduct	Use of code of conduct/ guidelines

## 5 Review of Workshop Resolutions and Wrap-Up

The moderator Dr. Janice Cumberbatch provided the wrap up on the day's proceedings. She pointed out that it would seem from the various group presentations that there was a general consensus on the need to establish a chemicals management committee which would take the lead in developing public awareness programmes. In the area of governance, setting up of this committee was a critical step. She highlighted the key areas from the various group sessions and said that there was a clear signal that there was a lot of work for that committee to do.

She noted the need to encourage a code of conduct and develop guidance for such a code. She further noted that through the workshop deliberations, a message was being conveyed that training opportunities must be sought and implemented to support chemicals management in Barbados.

She gave the audience the opportunity to make any further comments to the proceedings and thanked the participants for co-operating. She invited Prof. de Kruijf and Philip Pile to make any final comments.

### 5.1 Closing Remarks

The professor thanked all of the participants on behalf of UNITAR for their enthusiasm and input and said that it was evident that there were common problems of chemicals in the environment. He indicated that there was a real effort made in terms of the prioritized actions which government, through the EPD, might be able to carry out for a longer time period to come.

He wished everyone success in the next steps and said that UNITAR was willing to co-operate in further steps and he expressed his enjoyment in working with all of the parties.

Philip Pile on behalf of the EPD thanked all for making the workshop a success and said that all participants would receive a copy of the report which would also be presented to Cabinet.

There being no further business the workshop concluded at 4:45 p.m.





