

CEHI *news*

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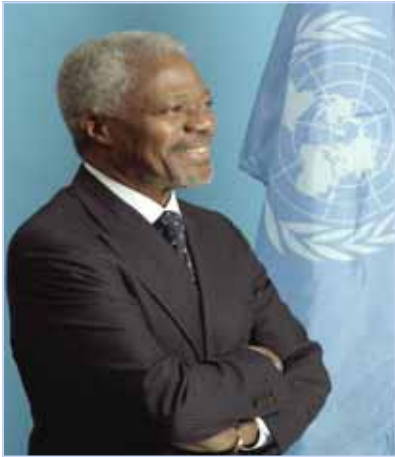


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Message of Kofi Annan , Secretary General, United Nations for World Water Day 22 March 2005



Mr. Kofi Annan
United Nations Secretary General
Source: UN

Water is essential for life. Yet many millions of people around the world face water shortages. Many millions of children die every year from water-borne diseases. And drought regularly afflicts some of the world's poorest countries.

The world needs to respond much better. We need to increase water efficiency, especially in agriculture. We need to free women and girls from the daily chore of hauling water, often over great distances. We must involve them in decision-making on water management. We need to make sanitation a priority. This is where progress is lagging most. And we must show that water resources need not be a source of conflict.

Instead, they can be a catalyst for cooperation.

Significant gains have been made. But a major effort is still required. That is why this year, World Water Day also marks the beginning of the "Water for Life" Decade. Our goal is to meet the internationally agreed targets for water and sanitation by 2015, and to build the foundation for further progress in the years beyond.

This is an urgent matter of human development, and human dignity. On this World Water Day, let us resolve to do more to provide safe, clean water to all the world's people. Let us also reaffirm our commitment to better management of the world's water resources, which are our lifeline for survival, and for sustainable development in the 21st century.



Statement of the Executive Director of CEHI, Vincent Sweeney, on the occasion of WORLD WATER DAY 2005, March 22


This year's observance of World Water Day seeks to remind us of the significant dependence on water for our daily living. It reminds us that we cannot take for granted that water will always be available to support our existence. As I mentioned some three years ago, we are challenged globally as we seek to meet growing demands for this scarce natural resource. This challenge is still being faced by both developed and developing countries, like ours in the Caribbean.

The theme for World Water Day 2005, entitled "*Water & Life*", provides us with an opportunity to reflect on the relationship between our access to safe water and the health and wellness of our populations. Rapid growth in consumer demand, coupled with the combined effects of natural and human interventions, still means that the demand for water is outstripping the planet's ability to supply it. It should be noted that in the past century, demand grew six-fold.

It has been estimated that, under current conditions, more than two-thirds of humankind will experience between severe and moderate shortages of water within the next 20 to 25 years. At the same time as water is in short supply in many countries the recent example of the flooding in Guyana has demonstrated that too much water can be damaging if the resources and infrastructure are not managed properly.

These are challenges which many of our countries face and will continue to face unless the issues related to water management receive greater priority.

Public participation is essential in grappling with these important water management issues. We must not continue to believe that water management is the responsibility of others. The management of water is everybody's responsibility. In the Caribbean context, farmers are good examples of resources managers. Their farming practices (such as slash and burn or overuse of pesticides), in the upper reaches of watersheds, unless properly managed (by these same farmers), can compromise the quality and quantity of water.



According to the World Water Council, at least 1.5 billion citizens of this world are without water or are supplied with so little and so poorly. Additionally, only 5% of the public purse is devoted to this sector. Also, according to the Water Supply & Sanitation Collaborative Council, “If we are to achieve the Millennium Development Goal (MDG) of halving, by 2015, the proportion of people who are unable to reach or to afford safe drinking water, we will need to do more”.

We are however encouraged that funding for water management, including watershed and sustainable land management has recently been made available to the region. After much effort, CEHI and its partner agencies, including UNEP, OAS and UNDP, have been able to secure funding to address wide-ranging issues which will seek to integrate watershed management with coastal zone planning and deal with land management issues in a number of Caribbean countries which can affect the availability of “water for life”. Approximately US\$15M has been made available to the region by the Global Environment Facility within the last few weeks for Caribbean countries. Project implementation will begin very shortly.

The region is also preparing for the hosting of the 5th Inter American Dialogue on Water, in Jamaica in October 2005, as well as active participation in the 4th World Water Forum, to be held in Mexico next year. Much is happening and the momentum must be maintained.

It is our hope that this year’s commemoration of World Water Day, particularly as it focuses on Water & Life, and following closely on the heels of the SIDS Mauritius International Meeting, will help to keep awareness high on the importance of water to our daily lives and by extension ensure that the global community continues to support our efforts.

*International Meeting for the 10-year Review of the Barbados Programme of Action,
10-14 January, 2005, Port Louis, Mauritius*

In 1994, the Small Island Developing States met in Barbados to strategise and plan their agenda for Environment and Development. This meeting was a follow up to the UN Conference on Environment and Development (UNCED), which had taken place 2 years before in 1992, in Rio de Janeiro, Brazil. The Barbados Meeting was organised in order to address the challenges peculiar to SIDS, to bring these challenges before the global development community and to give SIDS a voice. Out of this Meeting was born the Barbados Programme of Action or BPOA, the blueprint for action on environment and development.

A little over a decade later, the term SIDS + 10 had emerged. The Mauritius International Meeting (MIM) organised by the United Nations was the opportunity to review the implementation of the BPOA, to identify the gaps or emerging issues in sustainable environment and sustainable development as well as that of resources. For many persons participating in the “Mauritius Meeting” in January, it was the passing of the torch, made even more memorable when the Prime Minister of Barbados, the Honourable Owen Arthur symbolically handed over the SIDS instruments to the President of Mauritius, his Excellency Paul Berenger. Whatever the successes and failures in the implementation of the BPOA might be, the Caribbean state of

Barbados has become inscribed in the international development agenda.



Participants at meeting

The MIM was a gathering of over three thousand representatives of SIDS, international donor agencies, countries, civil society representatives, youth, experts, academics, consultants, lobbyists and the media. The island of Mauritius put on its best face to receive its visitors among whom were several Heads of State and the UN Secretary General, Kofi Annan. In addition to the main conference, there were several parallel events including the Civil Society Forum; a programme for youth entitled “Youth Visioning for Island Living”; the Community Village aimed at promoting exchanges among small islands and an Exhibition to showcase island products, technology and services.

With the tsunami disaster of 26 December fresh in the minds of everyone, the vulnerability of low-lying small island states was a major point of discussion. The Meeting also focused on a Strategy for the further implementation of the BPOA. The strategy states that the BPOA remains the “blueprint” for the sustainable development of SIDS. It covers 20 broad headings: climate change and sea level rise; natural and environmental disasters; management of wastes; coastal and marine resources; tourism resources; biodiversity resources; transport and communications; science and technology; graduation from least developed country status; trade: globalisation and trade liberalisation; sustainable capacity development and education for sustainable development; sustainable production and consumption; national and regional enabling environments; health; knowledge management; culture and implementation.

The Caribbean region was well represented by Prime Ministers Owen Arthur of Barbados, Dr. Denzil Doug-



L—R: Dr. Denzil Douglas, Prime Minister of St. Kitts and Nevis with Executive Director of CEHI, Mr. Vincent Sweeney

las, Prime Minister of St. Kitts and Nevis, Dr. Edwin Carrington, Secretary General of CARICOM and Ministers with responsibility for Environment from various Caribbean Countries. There were also representatives from the Caribbean Civil Society groups, NGOs, the University of the West Indies, The Caribbean Community Climate Change Centre (CCCCC), the Caribbean Environmental Health Institute, the Organisation of Eastern Caribbean States (OECS) as well as country representatives. The Caribbean had a high profile in that representatives moderated and participated in panel discussions at the Conference, at the Community Village and the Exhibition. As is generally the case, it was an excellent opportunity for networking.

The Caribbean Environmental Health Institute was especially pleased that the Project on Integrating Management of Watershed and Coastal Areas in Caribbean SIDS which is funded by the Global Environment Facility (GEF) and being co-executed by CEHI and United Nations Caribbean Regional Coordinating Unit (UNEP-CAR/RCU) was showcased at a GEF Session on Projects in SIDS. There is a lot of interest in the IWCAM. The GEF is viewing it as a flagship project in its International Waters Programme and is funding a similar Project for the Pacific SIDS for which there will be a transfer of knowledge from the Caribbean to the Pacific. CEHI also did a presentation on Waste Management in Caribbean SIDS at the Exhibition.



L—R: Mr. Vincent Sweeney, Executive Director of CEHI; Rt. Hon. Owen Arthur, Prime Minister of Barbados ; and Ms. Jacquelyn Joseph, Director, Human Development, CARICOM

The mood of the Meeting was generally very positive but the real impact will depend on the commitment of the donor community in making resources available to SIDS for the implementation of the Strategy and the will of countries to undertake concrete actions to ensure sustainable development.

Sick Building Syndrome

Sick Building Syndrome (SBS) is a term used to describe situations in which building occupants experience acute health and comfort effects that appear to be linked to time spent in a building, but no specific illness or cause can be identified. The complaints may be localized in a particular room or zone, or may widespread throughout the building. A building is generally defined as sick if 20% or more of the building's occupants exhibit symptoms (such as headaches, nausea, dizziness, sore throat, dry or itchy skin, sinus congestion, nose irritation, or excessive fatigue) and if these symptoms persist for more than two weeks particularly if the symptoms disappear when the sufferers leave the building for the weekend. (Hanson, 1991).

In the Caribbean this phenomenon had not been as marked as it had been in more industrialized countries. However, increasingly symptoms similar to those of SBS have been on the increase especially in the public sector. CEHI has done work in St. Lucia and the British Virgin Islands, as there have been numerous complaints from government employees.

In most cases, the reasons for the problems are very similar. These include mal-functioning air conditioning systems, presence of mould growth, leaks, high humidity, irregular temperatures, inadequate fresh air, inappropriate flooring materials and overcrowded offices.

However, the problems have not gone unnoticed and in Trinidad there has been an ongoing monitoring programme of the levels of microorganisms (both bacteria and moulds) at various sites. So far, fifty-two (52) sites have been studied and these include schools, hotels, shopping malls, hospitals and food processing plants. The study also monitors the effects of temperature and humidity on the levels of microbes present. This is being done by CARIRI on behalf of the Government of Trinidad and Tobago.

Legislatively, air quality should be addressed as part of any over-all occupational health and safety act. The Trinidad and Tobago Occupational Safety and Health Act 2004 addresses health issues and more specifically issues such as ventilation, lighting, overcrowding and cleanliness. St. Lucia's Employees Occupational Health and Safety Act 1985, Part III addresses similar issues.



Ceiling covered with mold

Recommendations for improved Air Quality in Office Buildings

- Offices should ensure that they have a functioning preventative maintenance programme in place to ensure that the air conditioning systems function properly.
- Develop an occupational health and safety programme to train employees to recognize the importance of health and safety issues.

Setting Standards for Weather-Related Disaster Preparedness in the Caribbean: Lessons from Hurricane Ivan

By Herold Gopaul, Information Services Director, CEHI

The Third Assessment Report of the United Nations' Inter-governmental Panel on Climate Change (IPCC) published in February 2001, indicated that small island states are most vulnerable to the impacts of climate variability and climate change. This is as a result of a) extreme weather and climate events such as hurricanes, cyclones, floods, droughts and localized tornadoes; b) sea level rise and c) the increasing global average temperature.

Caribbean states vulnerability include a) economic vulnerability due to the fragile economies relying heavily on tourism and agriculture, small domestic and regional markets and high dependence on external trade; b) environmental vulnerability due to the high biodiversity, very fragile ecosystems and limited freshwater and other natural resources and c) social vulnerability as a result of high population densities, high concentration of population along the coastal plains, not well developed infrastructure and the location (most of the countries in the region lying with the hurricane zone).

Given current climate change predictions, the average temperature in the Caribbean is likely to rise by one degree Celsius over the next thirty to fifty years. Given the interplay of the El Nino Southern Oscillation System with climate variability and climate change, the region is likely to experience more intense hurricanes, heavy rainfall and more intense drought period.




Hurricane Ivan moving across the Caribbean

The 2004 hurricane season (while not as yet ended at the time of writing) has been quite active to date, with at least six tropical storms/hurricanes being category three or higher. Hurricane Ivan which wreaked havoc as he made his way across the Caribbean, was the sixth most intense storm on record, with winds of over 160 miles per hour and gust in excess of 180 mile per hour when he passed over Cuba. The increased number of hurricanes and tropical storms that the region has witnessed over the past few years, their intensity and destructiveness should not escaped our attention.

The devastation brought on by these natural disasters can be very high, (over “90 per cent of building experiences some damage” resulting in over “hundreds of millions of dollars in damage” and a reported 65,000 of the island’s 90,000 persons being homeless from the destruction of Hurricane Ivan in Grenada). However, it can be made much worse by humans, by both activity and inactivity. With the passage of Hurricane Ivan, the region witnessed the social disaster – looting – exacerbating the human disaster.

Given the fact that weather-related disasters including hurricanes and flooding are realities in the region, what then can be done to minimise the ruin from such events? The answer lies in a) moving away from the self-contempt motion and rhetoric that “God is a West Indian”; b) setting standards, benchmarks and clear achievable goals for disaster preparedness and c) implementing a plan for meeting the standards, benchmarks and goals.

Notwithstanding the work being done by the National Emergency Management Agencies in the various coun-



tries in terms of public awareness, the people in the Caribbean needs to understand that they live in a hurricane-prone zone and that countries in the region are vulnerable to the impacts of climate variability and change including weather-related disasters.

With the number of deaths caused as a result of Hurricane Ivan and Jeanne across the region, there seems to be a lesson in there some where. The people in the region must be made to understand that weather-related disasters are serious issues for the region. Such an understanding must be ingrained in the psyche of the people and must be embedded in the region's ethos. The examples of the Bangladesh's flood plains and Mauritius are both two examples where the ethos of the people have been transformed to accommodate weather-related disasters.

In Bangladesh, the people of the flood plains depends on the annual Monsoon rain to flood the plains in order to gain a livelihood. In fact their very survival depends on this annual flooding. While at times the flooding may cause some wide spread disaster, the people have developed their way of life around the flooding events. This recognition that they live in a flood plain prone zone has allowed the people to develop their culture, institutions and systems including social, economic and political, in such a way as to minimize the negatives and maximize the benefits of flooding.

The example of Mauritius is much closer to that of the Caribbean. Mauritius located in the Indian Ocean, lies in the cyclone-prone zone, and over the last fifteen years have been hit by at least four major cyclones comparable to Hurricane Ivan. Generally, the island is hit by an average of two cyclones per year. The last major cyclone to hit Mauritius was Dina in 2002. Dina had wind gust of around 129 miles per hour (as compared to Hurricane Ivan's 125 miles per hour when it hit Grenada). Of the island's 1.2 million people, 3 deaths and 50 injuries were reported. While there was damage to the various sectors in the country, within 2 - 5 days most of the country was back to normalcy.

The United Nations Coordinator in Mauritius, two days after passage of Dina reported that "the well coordinated preventative measures taken at the beginning of the disaster in the form of information dissemination appeared to have minimized human casualties". The people of Mauritius were forced to learn the hard way with regards to disaster preparedness. The 1960 cyclones of Alix and Carol, caused wide-spread disaster on the island and killed at least 42 persons. This prompted a new and/or greater awareness of disaster preparedness. Today there is a strict adherence to the country's cyclone-proof building code, together with a well organized and efficient cyclone warning system. When the warning system kicks in, the population board up their homes and other building, and utilities (water, electricity and telephone) are cut 2 to 3 days prior to the passage of the cyclone. And within a week afterwards the country is back to normal.

There are very important lessons that the region can learn from Hurricanes Ivan and Jeanne. The first such lesson is to ensure that the region is better prepared to face weather-related disasters. The public desire by the Prime Minister of Trinidad and Tobago to see the region better prepare should be endorsed by the entire region.

However, preparedness must first start with the change in psyche and ethos of the people towards such disaster as had happened in both Bangladesh and Mauritius.

The next lesson is that standards, benchmarks and achievable goals must be set and enforced for disaster preparedness. It is useless for the region to have a Caribbean Building Code and that Code is not enforced.

Much of the damage done to buildings in the region from Hurricanes Ivan and Jeanne could have been minimized had there been strict adherence to the Building Code including consideration of building location. A strict Building/Construction Code would require hurricane shutters that cover the entire windows.

The region should consider hurricane eave overhang of between 4 to 8 inches. However, the Caribbean cultural phenomenon of 3 to 4 feet eave overhang is hard to overcome. The greater the overhang, the more wind gets underneath and this can lift the entire roof. The erection of billboards along the region's highways and roads have become quite fashionable in recent. During moderate hurricane wind speed of 120 mile per hour, these can be deadly flying missiles. Proper standards and Planning's approval must be enforced for placement of billboards.

The third lesson that can be learnt from Hurricane Ivan is that development policies and institutions must incorporate disaster preparedness in them.

Lying in a hurricane-prone zone and being small island states that are likely to be most at risk from climate variability and change, the countries of the region must as a matter of urgency, conduct national vulnerability assessment of climate variability and change including weather-related disasters. These assessments should include the development of vulnerability maps (hot spots) and must be used as a guide to inform national development policies, plans and programmes.

In addition, regional, national and local institutional and administrative arrangements must be assessed to ensure that there is capacity to respond in times of need. Two such arrangements are effective and efficient early warning system and the establishment of relief funds.



Severe roof damage to a home

Source: Institute for Business & Home Safety

Regardless of how prepared the region is, in times of intense hurricanes, some damage will occur. In such times national government must assist the most vulnerable including the poor, in rebuilding their lives. A national relief fund would allow rebuilding to take place with out must financial hardship being incurred at the national and/or individual levels. This fund should not be seen as a substitute for "disaster" insurance.

There will be times when there is wide-spread devastation done to the entire country, as in the case of Hurricane Ivan in Grenada, where external relief aid is required. To lessen the anxiety about when, what, how much and from whom relief aid would be coming, there should be the establishment of a regional relief fund. This fund would be accessible in times of disaster by governments of the region declaring a particular area a disaster zone. The recent passage of Hurricane Ivan through the Caribbean while leaving in its aftermath wide-spread devastation, has also left important lessons.

If these lessons are to be learnt, then the region must radically change its psyche about weather-related disasters; embodied in its ethos disasters preparedness; set standards, benchmarks and goals for disaster preparedness and implement policies, plans and programmes the are disaster preparedness friendly.

*Caribbean Solid Waste Managers Round-table Discussion
focuses on Sustainability*

With the completion of the OECS/World Bank Solid and Ship Generated Waste Management (OECS-SWM) Project, there were concerns in some quarters as to the future of a regional approach to waste management and associated challenges. However, in 2003 at the OECS Ministers of Environment meeting, CEHI's mandate in Environmental Health, inclusive of solid waste management, was reaffirmed.

As a result and in response to a request from solid waste managers, the Caribbean Environmental Health Institute (CEHI) hosted the Caribbean Solid Waste Managers. The meeting took place on April 21, 2004, prior to the opening of the 10th Annual Wider Caribbean Solid Waste & Recycling Alliance (ReCaribe) Conference. Participants at the Round-table came from 10 countries and all made presentations on the status of solid waste management in their respective territories and associated challenges. Discussions were held at the end of presentations on various aspects such as lessons learnt, possible solutions to common problems and avenues for Technical Co-operation among Countries (TCC).

The Discussions identified a number of major challenges facing the sector in the region. These included:

- Waste segregation and waste diversion;
- Establishment of functional recycling systems;
- Appropriate and acceptable cost recovery methods;
- Monitoring and enforcement of legislation;
- Littering and building public awareness;
- Handling and disposal of bio-medical and hazardous waste;
- System for the handling of yacht generated waste;
- High capital cost for the equipment procurement
- High maintenance costs and difficulty in sourcing replacement parts;
- Inadequate financial resources;
- Need alternate means of waste disposal to landfilling;
- Projected increase in waste generation rates and types of waste as a result of increased economic activities, trade liberalization and tourism;
- Collective regional approach to waste management and information sharing;
- Training and certification for solid waste personnel;
- Lack of awareness among decision and policymakers

In addition, the meeting identified a number of priority areas for intervention in the region. These are highlighted in Text Box 1.

Text Box 1: Priority Areas for Intervention in Solid Waste Management in the Caribbean

- Developing and implementing systems to cope with the emerging trends in waste generated such as increases in electronic waste;
- Training and certification in waste management;
- Recycling programmes for specific components of waste;
- Management of bio-medical and hazardous waste;
- Waste diversion and reduction in the quantity of waste going to the landfill;
- Model for the mechanism for cost recovery.



In addition to the challenges and priority areas, the meeting also focused on identifying opportunities for ensuring sustainability in the management of solid waste, including Technical Cooperation among Countries (TCC). These opportunities are included in Text Box 2.

Text Box 2: Opportunities for Solid Waste Management in the Caribbean	
Opportunities	Actions Requested
Tyre Management Programme	Regional Tyre Management Programme inclusive of : 1. Implementation of time lines 2. Model for capturing, handling, possession and processing before market; 3. Mechanism to drive market
	CEHI to sensitise Ministers at the Council for Human & Social Development (COHSOD)
Composting Programmes	<ul style="list-style-type: none"> • Determination of appropriate technology to meet demands • SWMAs to conduct waste characterization and calculate cost of disposal vis-à-vis composting.
	CEHI to assist with national action plans for composting
Yacht Waste Management	<ul style="list-style-type: none"> • Sensitise politician on collection and disposal of yacht refuse • Develop business opportunity model • Develop and implement legislation at regional level
Used Lead Acid Batteries Management	<ul style="list-style-type: none"> • Collaboration between islands and consolidation to meet viable quota • Countries to identify markets
Continuity from OECS-SWM Project	CEHI to facilitate dissemination of information online

The Round-Table Discussions applauded the OECS Solid and Ship Generated Waste Management Project, indicating that there have been many positive impacts on solid waste management in the region as a result of the project. This was evident from the country presentations that revealed significant expansion of collection coverage in many islands, the construction of sanitary landfills and significant involvement of the private sector.

The managers and other solid waste professionals agreed that there is a need for continuity, building on previous initiatives in solid waste management, with a regional approach to common problems. In this regard, CEHI was viewed as the agency best placed to play that pivotal role in facilitating networking among solid waste entities, providing technical support and conveying issues, concerns and priorities to the regional inter-ministerial levels. There were general agreements that the Caribbean Solid Waste Managers' Round-Table Discussions was useful and important and should be sustained along with the ReCaribe conference.

Cleaner Production: A Must for SMMEs

The Caribbean is as complex and dynamic as the capricious global community in which it exists. One of the factors separating mere survivors from those who adapt by adjusting to changes is the ability to anticipate and prepare. Being proactive involves using information for interpretation of global trends and occurrences. The reactive Modus Operandi is often more costly, and does not position adequately to take full advantage of any benefits to be had from the changes. Caribbean countries have come to recognize the importance of managing development in a sustainable manner, leading to the importance of proactive measures that safeguard the resources exploited for current use. One approach to achieving sustainable development by industry is through the use of cleaner production practices and principles.

Cleaner Production (CP) is defined by United National Environment Programme (UNEP) as *“The continuous application of an integrated preventative environmental strategy to processes, products and services to increase overall efficiency, and reduce risks to humans and the environment. Cleaner Production can be applied to the processes used in any industry, to products themselves and to various services provided in society.”* Essentially it means that by using better management strategies, methods and tools, the impacts to the environment and risks to humans is reduced, while producing positive economic spin-offs. Cleaner production is often linked with Eco-efficiency, which entails creating more goods and services while using fewer resources and creating less waste and pollution. However, while these two concepts have some similarities, they are not the same.




Essentially it means that by using better management strategies, methods and tools, the impacts to the environment and risks to humans is reduced, while producing positive economic spin-offs. Cleaner production is often linked with Eco-efficiency, which entails creating more goods and services while using fewer resources and creating less waste and pollution. However, while these two concepts have some similarities, they are not the same.

In the Caribbean, Small, Medium and Micro-Enterprises (SMMEs) are economically very significant, but also very vulnerable. They have traditionally played a major part in the alleviation of poverty and creation of wealth in the region. CARICOM estimates that they account for 45% of jobs created and play a major role in industries such as agriculture, wood products, garments, handicraft products, construction and the retail trade. Unfortunately, compared to their larger counterparts, they often face limited availability of financial and human resources, and technical capability. For SMMEs, CP implementation does not automatically imply the incorporation of expensive, sophisticated technologies.

The wide application potential of Cleaner Production can mean a number of different things to different businesses. In many instances, simply mapping out the operational processes/production/service chain including the inputs (materials and energy), wastes and outputs helps identify stages that can be made more environmentally friendly and economically feasible. That kind of audit often reveals various areas of wastage, excessive energy consumption, and opportunities to reduce, reuse or recycle waste. Thus, Cleaner Production can be viewed as a sort of business process re-engineering leading to better environmental performance in addition to reduced operational costs. Despite the initial investment costs that may be incurred by implementing Cleaner Production technologies, the benefits may include: lower production costs, reduced operating costs, improved image, reduced liability by complying with regulations, and increased productivity.

However, Cleaner Production has wider economic implications beyond the immediate cost savings or revenue generation potential for the business, and its application should not be viewed as optional. So what is the harm if SMMEs choose to continue business as usual?



While we may sympathize with the plight of SMMEs, they have to face the reality of trade liberalization and globalisation. The Caribbean is increasingly forced to deal with trading blocks with their various requirements, among which environmental standards feature prominently. Several moves have been made internationally that have impacts on the very ability of our industries to survive including the rapid move toward trade and investment liberalization; the internationalization of production, as evidenced by the World Trade Organization (WTO) agreements; the effective creation of the European Single Market (EU), the North American Free Trade Area (NAFTA) and the concept of a Free Trade Area of the Americas (FTAA) which comes into effect in 2005, as well as the new technological revolution.

The practical reason for environmental standards is first and foremost to protect the environment and human health. Also helping to drive these standards is the fact that most of the trading blocks originate in the first world where issues of environmental protection from NGOs and other pressure groups take on greater significance. Therefore, even where there may be no human health risks to the end users, customers want to know that their purchases did not result in environmental degradation.

With tighter supply chain management in the procurement of goods and services, importers view their suppliers as partners and as such closely associated with their product or service. If the management of one or more components does not satisfy the philosophical and psychological requirements of the customer, that company risks losing that customer.

CEHI ... *in the News*

CEHI financial situation reviewed

John Maginley, Antigua & Barbuda's health minister and current chairman of the Caribbean Environment Health Institute (CEHI), said his colleagues have reviewed the financial situation of CEHI and how the organisation was funded. Maginley had just returned from St. Lucia where a number of issues relating to the development of the Caribbean were raised when regional ministers of government gathered for the opening meeting of the Sub-Committee of the Board of Directors Caribbean Environmental Health Institute.

He noted that they also looked at a work programme of CEHI for 2005, which he said would ensure that the efforts of CEHI were addressed and the priorities supported and channeled where they were needed. "CEHI will be implementing a regional US\$14 million dollar project on watershed and coastal area management, funded by the Global Environment Facility," Maginley said, noting that the grouping would be responsible for ensuring that they collectively mobilised national and international support so that the objectives of CEHI, as identified by member states and the colleague ministers were met.

"Many of the member states are facing constraints, however, they must be reminded of why institutions of the community, like CEHI were set up. "They were set up to allow us to share resources and expertise to address the common and individual needs," he said. Maginley added that over investment for a number of years had reaped rich rewards. "They must live up to their individual responsibility with respect to continued financial support for CEHI and must remain as champions for CEHI in relation to its work for member states across the Caribbean."

SOURCE: Antigua Sun

operations personnel. A newsletter was published in August 2004, which summarised the project activities up to that point, identified more clearly the linkages between Cleaner production, agriculture and tourism, shared the perspective of other practitioners and discussed complementary regional activities.

The finished product is being distributed at workshops and other meetings. A second volume is currently in the final stages of production. It presents the perspectives of participants at the various zonal workshops including their understanding of the relationships between Cleaner Production and the principles and approaches of other common process frameworks such as HACCP (Hazard Analysis of Critical Control Points) and GAPS (Good Agricultural Practices).

So far, feedback from the workshops has been overwhelmingly appreciative of the initiative especially in recognition of its importance to the survival of small businesses. The cost saving aspect was particularly well received. Participants described the project as timely and indicated that they also looked forward to a sustained CP programme, such as a regional centre and clearing house, envisioned by CEHI to provide assistance and information on a continual basis.



Participants at the Cleaner Production Workshop held in Antigua
Source: CEHI



Facilitator, Dr. Leslie Munroe addresses participants at the
Cleaner Production Workshop held in Guyana
Source: CEHI

CEHI offers assistance to Guyana

In January 2005 Guyana experienced serious flooding that caused hardships to a lot of its citizens. Additionally this placed an additional strain on the water company, Guyana Water Incorporated, GWI as it had to grapple with issues of flooding at many of their installations, employee hardships, threats to employees on the field and possible contamination of their water sources.

GWI made a request for additional help with resources and CEHI was able to respond by sending its Sanitary Engineer, Ms. Camille Roopnarine, to assist with Health and Safety. Additionally it is hoped that CEHI can provide laboratory training for water quality testing. Ms Roopnarine spent 4 days with GWI, training employees and also provided recommendations for working in flood-affected areas. In total 83 employees were sensitised

The first meeting consisted of 23 sewage workers. In this meeting special emphasis was placed on the hazards associated with dealing with sewage.

The second meeting was at the Melanie office and consisted of operators and customer service staff. There were 28 persons present.



Discussing Health and Safety Issues at GWI's Training Room, Fort Street

Source: CEHI

Specific recommendations for workers exposed to flood affected areas

- An engineer or senior operations personnel should conduct a risk assessment at each location prior to repair works being carried out. They should be especially vigilant for drowned power lines and possible presence of hazardous materials. This can be ascertained by investigating the immediate surroundings and talking to residents. This would be of more concern if industries are located nearby.
- Employees should take the precautionary antibiotics as recommended by the Ministry of Health.
- Employees who have to work in the flood areas should have their tetanus shots.
- Protective Gear should be provided. These include:
 - Hard Hats,
 - Goggles,
 - Heavy Work Gloves
 - Watertight Boots with steel toe
 - Earplugs if there is heavy equipment working as well
 - Portable First Aid kits
- Provide soap and clean water for regular washing of hands. If there is a risk of mosquitoes, insect repellent should be provided.
- Equipment that has been flood affected should be checked by an electrician PRIOR to its use. Additionally articles affected by floodwater should be disinfected prior to use
- If cleanup of buildings is required, use soap, water and bleach to thoroughly clean the walls and floors and allow to air dry thoroughly.



One of the GWI's pump station under water

Source: CEHI

The third meeting consisted of 11 persons who conduct pipe repairs. The fourth and final meeting was held at Peter's Hall and consisted of 23 persons. The responses from all employees have been encouraging. The areas covered represented the main areas of concern for the staff given the flood situation.

The most concern was expressed about the risk of diseases especially leptospirosis. Whilst there was some knowledge some persons were still unsure about the methods of transmission, the use of antibiotics and the necessary responses if symptoms occur. At the onset of the flood there should have been meetings with staff to alert them of the concerns and what they might face.

There was also concern about the lack of safety equipment and cleaning materials.

Three main areas were discussed:

1. Personal Hygiene
2. Equipment/Work Area
3. Illnesses

General Health and Safety recommendations for the organization

Even though the floods presented great challenges to GWI, it was suggested that the company use its experiences to work towards a more systematic approach towards health and safety. The imminent employment of a health and safety officer should one of the first step towards realising this.

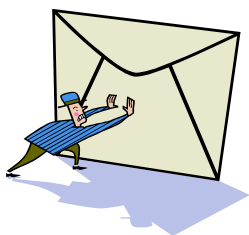
Once this is done, it is suggested that the organisation focus on addressing and implementing the following measures:

- Management Commitment to Health and Safety
- Health and Safety Committees
- Documented Health and Safety Procedures
- Emergency Response Plan
- Employee Training
- Safety Gear and Attire
- Accident and Incident Reporting
- Risk Assessments
- Medical Surveillance

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- The name of a contact to which further enquiries may be directed
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