SUSTAINABLE DEVELOPMENT IN JAMAICA

Presented by
Sustainable Development and Regional Planning Division
Planning Institute of Jamaica

Speakers’ Bureau
November 9, 2005
Street vending

Squatter settlement suffer from flooding

Deforestation to accommodate housing

Increased crime and violence

Traffic congestion

Urban decay
If tax were raindrops the universe will be flooded.
Jamaica urged to boost forest cover

CONSERVATOR of the Forestry Department, Marilyn

"We lose trees each year is approximately 0.1 per cent. We are not the

..."
What is Sustainable Development?

SD is balancing economic, social and environmental objectives— the three dimensions of sustainable development – integrating them where possible, .. and making trade offs where it is not possible..”
Efficient Use of Labour

Agricultural Growth

Household Needs

Social Equity

Participation

Empowerment

Social Mobility

Cultural Preservation

Economic

Services

Household Needs

Industrial Growth

Agricultural Growth

Efficient Use of Labour

Environment

Biodiversity

Natural Resources

Carrying Capacity

Ecosystem Integrity

Clean Air and Water
Social Issues

- High crime rate and lack of social cohesion
- Increasing prevalence of HIV/AIDS
- Large number of persons living in poverty
- Relatively high levels of illiteracy and low levels of technological competence
- Breakdown of traditional family structures and values
- Substance abuse and drug trafficking
- Juvenile delinquency
- Population structure and distribution
Economic Issues

- High levels of Indebtedness
- Unemployment and underemployment
- Trade Imbalance
  - Heavy dependence on imported products and services
  - Dependent on low cost primary products
- Protracted period of low economic growth
- Inadequate economic diversification
Environmental Issues

- Surface and ground water pollution
- Deforestation and watershed degradation
- Degradation of coastal and marine resources
- Inadequate solid waste management
- Inappropriate land use practices
  - Unplanned development
  - Inappropriate use of natural resources
- Vulnerability to natural hazards
Background

In 1987, the UN-sponsored Brundtland Commission released *Our Common Future*, a report that captured widespread concerns about the environment and poverty in many parts of the world.
Background

The Brundtland Report: economic development cannot stop but must change course to fit within the planet's ecological limits.

popularized the term sustainable development - defined as development that meets present needs without compromising the ability of future generations to meet their own needs.
Background ???

- Rio Earth Summit, 1992
  - Adoption of Agenda 21 and the Principles contained in the Rio Declaration on Environment and Development
  - Jamaica made a commitment to adopt National Strategies For Sustainable Development (NSDS)

- World Social Summit for Social Development 1995

- Millennium Development Goals

- World Summit on Sustainable Development (WSSD)
Millennium Development Goals

1. Eradicate extreme poverty and hunger
2. Achieve universal primary education
3. Promote gender equity and empower women
4. Reduce child mortality
5. Improve maternal health
6. Combat HIV/AIDS, malaria and other diseases
7. Ensure environmental sustainability
8. Develop a global partnership for development
Selected SD Initiatives

- The Jamaica National Environmental Action Plan (JaNEAP)
- Hazard Mitigation Policy
- National Poverty Eradication Programme (NPEP)
- Sustainable Rural Development Policy
- National Population Policy, and
- PATH
Selected SD Tools and Methodologies

- Quantitative and qualitative analysis
- Environmental & Strategic Impact Assessments (EIA & SEA)
- Poverty mapping
- Project Planning, Monitoring and Evaluation
- Indicators tracking
- Hazard impact assessment
- Spatial planning (urban and regional)
- Valuation of Environmental Resources
- Geographic Information System
What a Geographic Information System Does

- A GIS manages:
  - information about locations & their physical relations to each other
  - information about things that move through space e.g. humans, clouds, poisonous gases
Simple Uses of GIS in Health

Distribution of Visits to Health Centres for Non-Communicable Chronic Diseases
Simple Uses of GIS in Health

Incidence of Cancer by Gender in Kingston and St. Andrew, 1997

- stomach
- colon
- lung
- non hodgkins lymphoma
- breast
- cervix
- prostate

Incidence
Using GIS to Assist in the Identification of Communities Prone to Inner-City Violence

- A practical source of information for unreported cases of violence are the nation's major hospitals.

- Most victims plan to avenge their perpetrators as soon as they leave hospital.

- In response to the probable high level of homicides, (GOJ) & (IDB) has established an Injury Surveillance System in major hospitals across the island.
Using GIS to Assist in the Identification of Communities Prone to Inner-City Violence

Objectives

- To determine the distribution of injuries at sentinel sites across Jamaica
- To provide baseline data against which interventions can be monitored in the future
- To provide information to guide the design and implementation of relevant policies and programs to reduce fatal and non-fatal intentional and un-intentional injuries
Methodology

- Violence-Related Injury Surveillance System (VRISS) was installed at the A&E department of the KPH

- For each patient the following was recorded:
  - type of injury
  - geographic location of the incident causing the injury
  - the date of the injury.

- Injury Locations for the months of September 1999 to December 1999 was captured and analyzed using a GIS software
Injuries Caused by Violence as Recorded by the Kingston Public Hospital
(September to December, 1999)

Legend

<table>
<thead>
<tr>
<th>HEALTH_ID</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kingston Public Hospital</td>
<td>Yellow</td>
</tr>
<tr>
<td>Violence Related Injuries</td>
<td>Green circles</td>
</tr>
</tbody>
</table>

Population KMA Special Areas 2001

<table>
<thead>
<tr>
<th>Range</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 1392</td>
<td>Yellow</td>
</tr>
<tr>
<td>1393 - 3312</td>
<td>Orange</td>
</tr>
<tr>
<td>3313 - 7230</td>
<td>Brown</td>
</tr>
<tr>
<td>7231 - 13996</td>
<td>Brown</td>
</tr>
<tr>
<td>13997 - 24164</td>
<td>Brown</td>
</tr>
</tbody>
</table>

Prepared by The Planning Institute of Jamaica
Source: Census 2001, Statistical Institute of Jamaica
Ministry of Health

N.B. A total of 1058 records were provided for September to November, however due to limitations in the dataset supplied only 450 points were plotted.
Distribution of Self-Rated Delinquent Children (1 SD or greater) in the Cohort born September-October 1996
Exposure to Violence - KMA

Legend
- parish

Population
- 0 - 1392
- 1393 - 3312
- 3313 - 7230
- 7231 - 13996
- 13997 - 24164

Number of Violent Acts Witnessed
- 0.00 - 2.00
- 2.01 - 4.00
- 4.01 - 6.00
- 6.01 - 10.00

Prepared by The Planning Institute of Jamaica
Source/Census 2001, Statistical Institute of Jamaica
Ministry of Health

N.B. A total of 597 records were provided, however due to limitations in the dataset supplied only 205 points were plotted.
Injuries Caused by Violence as Recorded by the Kingston Public Hospital (September to December, 1999), Homicides 1999 and Children Exposed to Violence

Legend
- Kingston Public Hospital
- Violence Related Injuries
- Homicides 1999
- Children Exposed to Violence

Population KMA Special Areas 2001
- 0 - 1392
- 1393 - 3312
- 3313 - 7230
- 7231 - 13996
- 13997 - 24164

Prepared by The Planning Institute of Jamaica
Source: Census 2001, Statistical Institute of Jamaica
Ministry of Health
A Sample of Locations of Selected Injuries in the KMA recorded at the Bustamante Hospital for Children, 2002

Legend
- Motor Vehicle Accidents - Pedestrian, Bicycle, Motorbike, Car, Pick-up, Van, Jeep
- Accidents - Falls, Accidental Laceration/Blunt Injury, Thermal Burn, Poisoning
- Violence Related Injury - Fight/Argument, Robbery/Burglary, Drug Related, Gang Related, Mob/Riot

The points represented were generated by the Health GIS software and represent approximately 20% of the injuries recorded.
Using GIS to Assist in the Identification of Communities Prone to Inner-City Violence

Benefits

- The MOH is now using this information to spearhead project proposal to reduce the risk of conflict that may result in homicides in violence prone communities.

- The police can now prepare more comprehensive reports on assault related cases and identify communities or hot spots for intervention.
Benefits cont’d

- Reduction in the amount of public fund spent to treat violence related injuries

- Identification of hotspots can be analysed with other socio-economic data e.g. poverty, education

Using GIS to Assist in the Identification of Communities Prone to Inner-City Violence
VISION for Sustainable Development

• Highly disciplined and respectful society
• Low Crime Rate
• A high quality of life for all citizens
• Peace, stability and unity
• Prosperous and aesthetically appealing communities
• Regionally balanced development
VISION for Sustainable Development

- Transparent and participatory decision-making processes
- A healthy and well-educated society
- Sustainable use of natural resources
- Healthy ecosystems
- A diversified economy capable of producing sustainable growth and shared benefits
Discussion