

Jamaica



KEY FACTS:

- ◆ Capital: Kingston
- ◆ Population: 2,714,000 (2007)
- ◆ Joined Commonwealth: 1962
- ◆ GDP growth: 0.7% p.a. 1990–2005
- ◆ Official language: English
- ◆ Time: GMT minus 5hr
- ◆ Currency: Jamaican dollar (J\$)

Current vulnerabilities and threats

1. What are the health risks from current or future climate change impacts that are of most concern to your country?

A vulnerability and adaptation assessment on the human health sector completed by the Climate Study Group at the University of the West Indies at Mona concluded the following:

- ◆ Higher temperatures are strongly associated with heat stress, increased episodes of diarrhoeal diseases, increased dangerous pollutants, especially ozone, leading to respiratory diseases, mosquito habitats moving to higher altitudes, and greater contact between food and pest species, especially flies.
- ◆ Sea food poisoning can also increase because of fish feeding on toxic algae blooms which increase with warmer seas.
- ◆ Extremes in climate can lead to pathogen loading of rivers and contamination of potable water in the case of droughts.
- ◆ Fire caused by droughts can lead to respiratory diseases.
- ◆ Flooding associated with storms and hurricanes can lead to increases of water-borne and rodent-borne diseases, especially leptospirosis.
- ◆ Increase hunger and malnutrition.
- ◆ Increase in asthma and other respirable ailments (drought and dust).
- ◆ Increase in water storage (45 gal drums).
- ◆ Work years loss due to disability is estimated at 600 years.

2. What population groups in your country are most vulnerable to the health impacts of climate change and what are the impacts likely to be?

Climate change therefore can have a significant impact on fairly large segments of the population because their present health status and socio-economic situation for example, coastal dwellers (including illegal entry from countries with endemic disease), fishermen, rural settlers (especially where there is shortage of/access to potable water), farmers, tourist sector with its dependence on the sun, sea and sand, the poor/indigent, children and elderly most vulnerable to respirable ills make them susceptible to diseases that may be aggravated by climate change. At the other end of the spectrum there are the very young, those less than five years old, who now form about 10 per cent of the population. The table below shows the causes of death in the under five population in Jamaica and underscores the importance of diarrhoeal diseases.

Table 1: Causes of death in the under 5 population. Jamaica 2000-2005*

Diseases	Percentage
Neonatal includes diarrhoeal diseases	52
Diarrhoeal	10
HIV/AIDS	6
Pneumonia	9
Influenza	2
Others	21

Please note that mortality in this group is 20 per 1000 live births (WHO, 2006)

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Strategy and policy

3. How much of a priority is addressing the impacts of climate change on health for your country?

Mid-level priority.

4. Please describe the strategies your country has developed (for example, health and climate change adaptation strategies) that address the health impacts of climate change.

The short-term strategies for dengue currently adopted in the region, namely: public education aimed at encouraging individuals to identify and eliminate current breeding sites and to identify dengue symptoms; surveillance in outbreak communities for the purpose of environmental sanitation; and adult mosquito control through the use of an appropriate insecticide (fogging). Of the three, public education achieved the highest composite score while adulticidal fogging achieved the lowest score. Education benefits from the fact that in the present framework it is generally medium to high ranked in each category. Its effectiveness is medium-ranked due to the seasonal nature of the campaign, while the presence of established units to handle education accounts for the medium (as opposed to high) ranking with respect to cost and technical challenges.

Insecticidal fogging, though oft demanded and practised, suffers from limited long-term effectiveness, an inability to promote neighbourliness (people shut their windows), limited social acceptability as the often used insecticide – malathion – has a characteristically unpleasant odor, and there is the need for specialised equipment for its distribution.

Of the long-term strategies assessed, the education strategies again achieve highest composite ranking (though only marginally so), with the

Table 2: Adaption strategies matrix

Measures	Cost	Effectiveness	Social Acceptability	Friendly for Environment	Neighbour Effects	Technical Challenges and socio economic change	Score
Short term							
1. Adulticide (ULV or thermal fog sprays) in truck or air	H	L	L	L	L	H	6
2. Education (disease symptoms, sanitizing the environment)	M	M	H	H	H	M	24
3. Surveillance for vector or larval/pupal control.	H	M	M	M	M	L	18
Long term							
1. Surveillance for vector or larval/pupal control and environmental sanitation	H	M	M	M	L	L	16
2. Community education and involvement	H	H	H	H	H	M	26
3. Chemical control	H	M	M	L	M	L	16
4. Biological control	H	H	M	H	M	M	20
5. Adult control - physical - mesh windows	M	H	H	H	H	H	24
- Personal protection	M	M	M	M	M	H	16
6. Use of physical control low-cost secure drums	H	H	M	H	H	H	20
7. Granting security of tenure to squatters	H	H	H	M	H	H	20
8. Early warning system	M	H	H	H	H	H	24
Columns 2 through 7 indicate assessment criteria. Column 8 gives a composite score based on the ranking in columns 2-7. Assessments are on the basis of High, Medium and Low. In compiling the composite score, High is given to a score of 5, Medium a score of 3 and Low a score of 1, except for columns 2 and 7 where the scoring allocation is reversed. The maximum possible score is 30.							
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focus being on sustained campaigns aimed at community education (as opposed to targeting individual behavioural practices) and community involvement. Chemical control, surveillance practices, and strategies relying on the individual to personally protect themselves received lowest scores. Surveillance as a long-term approach does not engender neighbourliness (general suspicion), while the best personal protective measures come at a cost to the individuals, thereby limiting their possible use by the poorest who are the most vulnerable.

Generally, however, most strategies fall in the mid-range of scores (16–24), suggesting that relative advantages in one area are offset by disadvantages in other areas. Physical control via the use of low cost covered drums would address vulnerability issues surrounding water storage but such drums or drum covers are yet to be designed and would have to be subsidised or made available free to the most vulnerable. Even then, much would depend on householders being vigilant in covering containers.

Granting security of tenure to squatter individuals would promote

community structure and increase the possibility of the eventual implementation of appropriate infrastructure for regular water supply. Such a move, however, is costly and fraught with social tensions.

Biological control, e.g. using fish to control the mosquito population is an environmentally friendly option, but is not suited to community practice unless the community could be persuaded of the benefits of proper implementation. Finally, using an early warning system for action would imply the coordination of a number of agencies (e.g. climate research and monitoring agencies and health ministries) and the development of appropriate thresholds for action and coordinated action plans.

5. Has health been integrated into national climate change mitigation and adaptation strategies?

No, however we hope that the recommendations from the second national communication will be integrated at a later date.

6. What steps have been made towards implementation of these strategies?

When SNC is completed (June 2009) Cabinet will be informed and asked to implement the recommendations.

7. What are the current policy gaps in addressing climate change and health?

Decisions must be informed with the best available scientific evidence and these will require continued research on the possible impacts.

8. How well equipped is your health system to cope with the impacts of climate change?

The adaptive capacity of the country depends to a large measure on the efficiency of the health system. Until 1997, healthcare was organised, delivered and coordinated centrally by the Ministry of Health (MOH) in Kingston. Under the National Health Services Act of 1997, the functions of the Ministry were decentralised with delivery assigned to four regional bodies while policy, planning and purchasing functions were retained by the Head Office. The objective of the exercise was, in part, to make the system more sensitive and responsive to local needs. The South eastern Region embraced Kingston, St Andrew, St Catherine and St Thomas and comprises 47 per cent of the population. The smallest Region with 14 per cent of the population is the North eastern comprising the three parishes of Portland, St Mary, and St Ann. The Western Region comprises the parishes of Hanover, Trelawny, St James and Westmoreland and its population comprises 17 per cent of that of the island. Finally, the Southern Region of St Elizabeth, Manchester and Clarendon account for 22 per cent of the population. Primary Health care is the pillar on which the system stands and it is delivered through a nested system of Types I (mainly rural) to Type V health centres delivering progressively more comprehensive care. Type 1 health centres deliver maternal and child health services and are staffed by Midwives and Community Health Aides. It is only at the level of the Type 3 health centre that the full range of preventive and promotive services are provided and a doctor is in attendance on a daily basis. Type 3 health centres are located in urban areas. In 2002 there were 314 health centres. The MOH also operates 23 hospitals, 17 general and 6 specialists, with a bed capacity of just under 5,000 beds. Hospitals are also classified depending on the level of services they provide. Three Type A and four Type B hospitals are located in urban centres with Type B serving as referrals to the 10 Type C rural hospitals. Specialist hospitals provide care for specific populations.

9. Have you made any changes to your health system in response to increased risks resulting from climate change and if so what changes have you made?

No change to health service.

10. What are the main constraints to addressing the health impacts of climate change in your country and how will these be addressed?

- ◆ A lack of will on the part of some relevant agencies to get involved with the national programme.
- ◆ Uninformed populace as to the likely impact and the role/input individuals can make.
- ◆ Funding for necessary interventions/programmes (speculation).
- ◆ Finding economical solution/alternative way of life: social habits/behaviour etc. dictates how climate change will impact health.

11. Have national resources been allocated to address climate change and health in your country? If so, approximately how much has been allocated and for what issues?

Partially, but the resources are not under one budget heading.

12. Is the Ministry of Health working together with other ministries (such as Ministries of Agriculture, Environment, Fisheries and Finance) to address health and climate change issues?

Yes.

13. Has your country been involved in work to manage climate change and health at the international level?

Yes, international and regional groups (UNFCCC and CCCCC.)

14. How would you describe the capacity of your country to participate at the global level on climate change and health?

Intermediate. Much work has been done especially by the lead agency National Meteorological Service at the regional and global levels as it relates to a Strategic Plan. Where the health impacts are a concern, MOHE needs to get involved and formulate a more structured and coordinated approach starting with strengthening intra-sectoral collaboration.

Any other comments or information you would like to provide

The Commonwealth Secretariat and other international bodies should assist small and medium developing countries to access funds to strengthen climate change action plans and to develop research.