



# Science Diplomacy to Eradicate Hunger and Reduce Poverty in Haiti



**Edward Bercy\***

## Introduction

The Republic of Haiti is a sovereign State located on the island of Hispaniola in the Greater Antilles archipelago of the Caribbean Sea. It occupies the western thirds of the island, which it shares with the Dominican Republic. Haiti is 27,750 square km (10,714 sq mi) in size and has an estimated about 10.6 million people, making it the most populous country in the Caribbean Community (CARICOM) and the second-most populous country in the Caribbean as a whole.

The Government of Haiti is a semi-presidential republic, a multiparty system, wherein the President of Haiti is the head of state, elected directly by the popular elections. The Prime Minister acts as the head of government, and is appointed by the President, chosen from the majority party in the National Assembly. Executive power is exercised by the President and Prime Minister, who together constitute the government.

Due to its geographical location, Haiti is highly vulnerable natural disasters (hurricanes, earthquakes, floods). After having been one of the first Caribbean destinations in the 1950s, 1960s and 1970s, and having missed the democratic transition after the fall of the Duvaliers (François Duvalier called “papa doc” and Jean-Claude Duvalier called “baby doc”), Haiti experienced great political instability. Since 2000, Haiti has faced repeated political and natural disasters, each of which caused growth to plummet for a period of time. The last disaster in date is Matthew's Hurricanes which struck southwestern Haiti on 4 October 2016, leaving widespread damage. Haiti, dubbed as “The Pearl of the West Indies” is experiencing a reviving democracy, and is

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\* First Assistant, Ministry Of Foreign Affairs, Haiti

reorganizing and restructuring itself after the violent earthquake of 12 January 2010.

Haiti remains the poorest country in the Americas, and one of the poorest in the world (with a GDP per capita of US\$ 846 in 2014) with significant needs in basic services. According to the full reference household survey (World Bank 2012), more than 6 million out of 10.4 million (59 per cent) Haitians live under the national poverty line of US\$ 2.42 per day, and over 2.5 million (24 per cent) live under the national extreme poverty line of US\$1.23 per day. It is also one of the most unequal countries with a Gini coefficient of 0.61 as on 2012.

Haiti faces important challenges to generate faster growth and fight poverty. Economic growth continues to decelerate from 2.8 per cent in the fiscal year 2014, to 1.2 per cent in 2015, and owing to lower investments, uncertain political environment and a modest recovery of agricultural sector after severe drought it showed 0.8 per cent in 2016.

## Importance of Science Diplomacy

The level of poverty and hunger remains critical in Haiti, and it is through the channels of science diplomacy that we can strive to resolve the crippling problems faced. Science diplomacy can be defined as the use of international science-policy collaborations to address common challenges. As such, it is a tool to build bridge between nations and to achieve shared benefits. Many of today's global challenges related to water, energy, food, climate and health are so called 'wicked problems', meaning that they are not confined to any single nation or region and require multidisciplinary solutions through science-policy interface. However, science diplomacy has become an umbrella term to describe a number of formal or informal technical, research based, academic or engineering exchanges.

Science stimulates inherently a global innovation activity, one that transcends language, politics and geography. The phrase 'science diplomacy' has itself evolved, referring to interactions among national states in science

to address world challenges. It combines two distinctly different areas of human interest: "science," being non-political evidence based universal language; and diplomacy, a process of managing relations between sovereign states, reflecting their individual national interests.

In January 2010, the Royal Society and the American Association for the Advancement of Science noted that "science diplomacy" refers to following three main types of activities:

- "Science in diplomacy": Science can provide advice to inform and support foreign policy objectives.
- "Diplomacy for science": Diplomacy can facilitate international scientific cooperation.
- "Science for diplomacy": Scientific cooperation can improve international relations.

The growing importance of science diplomacy is reflected in incorporating scientific initiatives in diplomatic negotiations and in governments using scientific advisors in developing evidence based international policies. As such, science diplomacy implies engagement of states or organizations which are supported by nation states, i.e. UN agencies or similar organizations. Notwithstanding such distinctions, academic institutions are central to all forms of scientific collaborations. The aim of science diplomacy is to create "smart" or strategic frameworks to address multilateral issues using scientific collaborations and interventions.

## Agriculture in Haiti

Haiti is world's leading producer of vetiver, a root plant used to make luxury perfumes, essential oils and fragrances; provides for half the world's supply. Half of all Haitians work in the agricultural sector. Haiti largely relies upon imports for half its food needs and 80 per cent of the import sector constitutes rice.

Haiti exports crops such as mangoes, cacao, coffee, papayas, mahogany, nuts, spinach, and watercress. Agricultural products comprise per cent of all exports. In addition, the local agricultural products include corn, beans, cassava, sweet

potato, peanuts, bananas, pigeon peas, sugarcane, rice, sorghum, and wood.

The agricultural sector represents 25 per cent of the GDP and accounts for over 50 per cent of jobs. However, agricultural occupations are extremely insecure and are forced to live in an Indecorous manner. Over two-thirds of the inhabitants of the rural regions are poor, and agriculture is their main source of vocation and income.

## Role of Agriculture Sector

The better way to reduce poverty and eradicate hunger in Haiti is to pool more investments and incorporate science and technology in the agriculture sector, which would resolve issues in the other fields. Also at present, there is a need of programme based cooperation in agriculture which must include: introduction of farming system, use high yielding crop varieties and breeds of livestock animals for reduction of poverty, elimination of hunger and malnutrition, increasing income of farmers, and food security and food safety. Through the enhancement of South-South Cooperation we can solve these problems while developing a vision for rural development. Such a vision should include the following

- **Specific policies:** Access to credit and insurance; technical support; market access and standardization.
- **Research and development:** Strengthening local research institutions; empowering local research groups for strategic sector; and creating Research and Development national system (autonomous technology development) for sustaining national needs of agricultural technologies as well as industries for manufacturing agro-chemicals such as fertilizers, pesticides, etc.
- **Entrepreneurship and innovation:** Big, middle size and smallholder farmers; processors and cooperatives to take up entrepreneurial activities.

Technical Support for Agricultural Research and Technological Innovation Platform (ARTIP) can be developed with the holistic vision of rural

development, by strengthening local capacity; management of partnership across all levels; launching projects in rural development with bilateral and multilateral perspective; and gaining experience in management of innovation in rural set-up.

Recently, the new elected President Jovenel MOISE, has given main thrust to agriculture, as a starting point for economic recovery of the country, a vision for abio-ecological agriculture as the driving force of the Haitian economy, creating jobs and generating wealth for the population of which more than 50 per cent lives in rural areas. Science, technology and innovation becoming more important for developing countries as the economy of these developing countries is mostly agriculture based. In addition technology transfer through South-South cooperation can increase value-added content of the production and increase employment in rural areas.

## Relevance/importance/Impact of South-South Cooperation

- Many countries engage in cooperation without a detailed institutional framework and operative programmes. This in the long run is not sustainable. For successful cooperation to be realized, it is important to create institutions, and develop mutually agreed programmes, and not just sign agreements (eg. CELAC, CARICOM, ACS).
- South-South cooperation can be an effective tool for promoting development in the developing world as an alternative to aid and donations from the developed world, especially if the developing/emerging economies in the South give a sound leadership.
- Increased collaborations between partner states in the South by sharing development experiences and pooling resources together to provide a big drive for economic development.
- Developing countries need to identify their weaknesses and use more cooperative measures among themselves to address them.
- South-South cooperation still faces numerous challenges, notably problems of diversity,

limited resources and unequal international political and economic order, which must be addressed to reduce world imbalance.

- Though South-South cooperation may not entirely substitute cooperation with the North, but it is going to be the most sustainable and appropriate form of cooperation for developing nations.

## Conclusion

Science diplomacy is a dynamic new paradigm of collaboration, and development of science diplomacy is growing in importance due to modern scientific endeavours. It is gaining official recognition from states as a valuable tool in integrating of science and international

relations. It encourages communication and thereby breaks down barriers to introduce new layers of interaction for international relations. It provides a sound basis for development and a positive and constructive model for international relations in the future through a framework of diplomacy for science.

## References

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