

Iodine Network's Advocacy Mission to Haiti: A Call for a National Coalition

Haiti is among the poorest countries in the Western Hemisphere, with the highest child mortality rate in the Latin America/ Caribbean Region. Only 2.4% of the households have access to adequately iodized salt. About 7 million people are at risk of iodine deficiency diseases and each year 25,000 newborns are unprotected from brain damage caused by iodine deficiency.

Urgent Need for Action in Haiti

The existence of iodine deficiency in Haiti is well documented. Thus, the Network for Sustainable Elimination of Iodine Deficiency (Iodine Network) identified Haiti as a priority country for the development of a program to eliminate iodine deficiency disorders (IDD). In an effort to stimulate action toward the elimination of IDD, the Network sponsored a mission of international experts to Haiti. Mission participants included representatives of World Food Program (WFP), EU Salt, Centers for Disease Control and Prevention, ICCIDD and UNICEF, all members of the Iodine Network.

The program of the mission included advocacy meetings with representatives of the Ministries of Agriculture, Commerce and Health as well as meetings with staff from international development agencies including CIDA, the French Cooperation, The Pan American Health Organization (PAHO), The Food and Agriculture Organization of the United Nations (FAO) and the World Bank. The Mission team also visited salt ponds and a rational salt production operation. There was also a visit to the only operational iodization facility in Haiti.

For details about the findings of this mission please refer to the full report.



Network for Sustained Elimination of Iodine Deficiency
Mission to Haiti | November 5–10, 2006

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The Network for Sustained Elimination of Iodine Deficiency

The Network for Sustained Elimination of Iodine Deficiency (Iodine Network) was launched out of the World Salt Symposium in May 2000, where salt industry executives met with government leaders, NGOs and international organizations and agreed to form a global coalition to support activities that assist countries in reaching the goal of sustained iodine deficiency elimination through universal salt iodization (USI). Two years later, at a Special Session of the UN General Assembly on Children side event, a Plan of Action for meeting the Millennium Development Goals, including *“Achieve the sustainable elimination of iodine deficiency by 2005”* was adopted.

The Iodine Network is an alliance of organizations that share a common vision of a world in which every child is born protected from iodine deficiency and resulting brain damage, and in which the entire population is protected from the loss of intellectual and physical resources through this easily preventable cause of mental retardation.

The main role of the Iodine Network is to strengthen national efforts by taking action at the international and regional levels. The Network contributes to the compilation of information about USI and iodine deficiency disorders, analyses of lessons learned and best practices, as well as monitoring and assessing progress towards USI. In addition, the Network serves to harmonize support to countries provided by Network member organizations.

The Iodine Network members are:

United Nations Children’s Fund (UNICEF)
World Health organization (WHO)
Micronutrient Initiative (MI)
Centers for Disease Control and Prevention (CDC)
Kiwanis International (KI)
Salt Institute (SI)
Emory University
International Council for Control of Iodine Deficiency (ICCIDD)
European Salt Producers’ Association, now called EU Salt
China National Salt Industry Corporation (CNSIC)
World Food Programme (WFP)
Global Alliance for improved Nutrition (GAIN)

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INTRODUCTION

Iodine deficiency is recognized as a major public health problem throughout the world, particularly for pregnant women and young children. When iodine requirements are not met, thyroid hormone synthesis is impaired, resulting in a series of functional and developmental abnormalities, grouped under the heading of iodine deficiency disorders (IDD). The most devastating outcomes of iodine deficiency are increased perinatal mortality, brain damage and mental retardation, all of which can be prevented. Iodine deficiency is a phenomenon that occurs in many areas of the world as a consequence of natural processes that reduce the iodine content of the soil and water.

Salt is the most commonly used vehicle for iodine supplementation and consumption of iodized salt is a well-established and safe public health measure for prevention and elimination of iodine deficiency. The use of iodized salt is particularly

important for pregnant and lactating women and for young children in order to protect the developing brain. In 1993, the WHO/UNICEF Committee on Health Policy recommended universal salt iodization (USI) as main strategy to prevent and control iodine deficiency.

The Network for Sustained Elimination of Iodine Deficiency supports the development of efforts to achieve USI. The Network is an alliance of major organizations that share a common commitment to assist countries in reaching the goal of sustained elimination of IDD. The Network supports national efforts to eliminate iodine deficiency in a sustainable manner by promoting collaboration among public, private, scientific and civic organizations. Accelerated progress and better coordination to focus on priority populations and actions are needed to achieve the Network's vision within the next decade.

Consumption of iodized salt is a well-established and safe public health measure for prevention and elimination of iodine deficiency

Background

The existence of iodine deficiency in Haiti is well documented. According to WFP-MI, about 7 million people are at risk of iodine deficiency and 25,000 newborns each year are not protected from brain damage caused by iodine deficiency. Iodized salt is currently being used by only a small percentage of Haitian households and only 2.4 % of the salt consumed in Haiti is properly iodized. Urinary iodine concentration is the best indicator of iodine nutrition; a median value between 100 to 199 micrograms of iodine per liter of urine reflects optimal iodine nutrition. In a 2005 national survey of 6-12 year olds, 60% of urine samples had an iodine concentration below the minimal normal value of 100 ug/l and 25% of samples were below 50ug/l. Fortification with 20-40 ppm, as recommended by WHO/UNICEF/ICCIDD (2001) provides adequate levels of dietary iodine, but has not been implemented as a public health measure in Haiti.

The Ministry of Health and Population (MSPP) has been working to develop a program to introduce iodized salt to the Haitian market since 1998. Barriers to a successful program include the poor quality of the locally produced salt and the fragmented nature of the salt industry in Haiti. The traditional production methods result in the production of salt that is hygroscopic and unsuitable for iodization. In addition, because of high particulate content, Haitian consumers typically wash the salt that they buy in the marketplace, washing away any iodine before the salt is consumed. To date, production of iodized salt has been intermittent and the supply has not been adequate to meet even the limited demand created by the launch of the product. Local capacity to produce salt was damaged in 2004 by severe flooding associated with Hurricane Jeanne. In addition, a salt fortification facility was equipped to produce iodized salt, but has not produced fortified salt for more than 6 months due to lack of operating expenses.

Mission Goals

The Network for Sustained Elimination of Iodine Deficiency identified Haiti as a priority country for the development of a program to eliminate iodine deficiency disorders (IDD). In an effort to stimulate action toward the elimination of IDD, the Network sponsored a mission of international experts to Haiti. As defined in the terms of reference provided to members of the team in advance of the trip, the mission to Haiti had three primary goals:

- 1 To obtain a commitment from the government of Haiti to take immediate steps to protect the mental and productive capacity of its people by eliminating IDD. The commitment may include the convening of a National IDD/USI Committee with a time bound results-oriented work plan.
- 2 To stimulate political interest, commitment, and action for the production of higher quality salt; in the recognition that only a higher quality of salt could eventually be iodized.
- 3 To understand and address the economics of domestic salt production, fortification, and sale, in order to arrive at a jointly (with the Haitian government and national stakeholders including producers and processors) conceived, viable plan to produce, fortify, and market high quality fortified salt.

Mission Objectives

Through meetings with political leaders, policy makers, salt traders, salt producers, organizations resident in Haiti, and field visits, the participants in the mission were asked to work toward the following objectives:

- 1 Persuade Haitian policy makers of the economic and human consequences of iodine deficiency in Haiti; outline the components of a successful national IDD program; and obtain

commitments to form a responsible inter-ministerial committee to adopt legislation that supports USI *and* prohibits the importation of non-iodized salt into the country.

- 2 With Haitian policy makers, jointly determine the next essential steps for successful elimination of IDD and agree upon the *basic components* of a 'Joint Action Plan to Eliminate IDD in Haiti' specifying roles, resources needed, and resources that could be provided.
- 3 With Haitian policy makers, jointly determine the next essential steps for producing higher quality salt that can be iodized, and agree upon the *basic components* of a 'Joint Action Plan To Support Production of Higher Quality Salt' specifying roles, resources needed, and resources that could be provided. This should take into account efforts currently being deployed in the country by Network member organizations including the World Food Program (WFP), UNICEF, and the Micronutrient Initiative (MI).

Mission Agenda

The agenda for the mission participants is detailed in Annex 1.

Advocacy Meetings

Over the course of the week, the mission met with representatives of the Ministries of Agriculture, Commerce and Health to advocate for greater governmental involvement in responding to the public health problem of IDD. In addition, mission members met with staff from CIDA, the French Cooperation, PAHO, FAO and the World Bank. In a number of cases, persons representing these agencies were unaware of the scope of the IDD problem in Haiti as the government had not identified this issue as a

governmental priority. At meetings with CIDA and the French Cooperation, their representatives expressed skepticism regarding the potential for success of the suggested inter-ministerial group. At the end of the visit, the Minister of Health chaired the debriefing meeting. He indicated that Ministry of Health was aware of the problems related to salt production and fortification and referred to resolutions on salt iodization programmes made in an earlier workshop. Additional details of these advocacy meetings are provided in Annex 2.

Salt Production

The mission visited salt ponds and a rational salt production operation in the Gonaives area and participated in discussions with two NGOs (Ananda Marga Universal Relief Team, AMURT; Action Contre Faim, ACF) involved in the rehabilitation of salt ponds that had been damaged by Hurricane Jeanne. This visit confirmed information contained in reports prepared by several consultants over the past seven years. In the area near Gonaives, many traditional salt production operations were damaged. Ponds in urban areas are surrounded by heavily polluted areas with serious solid waste management problems. The quality of salt produced by functioning single pond operations appeared to be low, although no quality data were available to confirm this impression. Rehabilitation efforts by AMURT and ACF have been focused on restoring income for salt producers, not improvements in technology. Based on statistics provided by these NGOs, the fragmentation of the salt industry is substantially greater than previously estimated.

A modern serial pond production system was also visited. Salt produced by this facility appeared to be adequate for iodization; however, no quality control monitoring of the crystallization process was being done. The operator of the plant reported a capacity of 5000 tons per year and a selling price of 150 G per 50 kg sack (approximately

\$75/ton at an exchange rate of 40G per US\$). The owner also reported an investment of \$150,000 in the development of the serial pond operation.

To summarize, most of the locally produced salt is inadequate in quantity and quality and not suitable for iodization because of the high magnesium and particulate content. There are no reliable data on the number of producers or ponds, the quantity of salt produced or the income derived from salt production.

Salt Fortification

The mission visited a salt fortification plant in Cité Militaire, the only operational iodization facility in Haiti at present. Insecurity in the area limits free access to the plant. The facility is owned by MSPP and operated by a private contractor. The roles of the partners were not clear to the mission members.

The plant was constructed early in 2005 with funds from a grant to University of Notre Dame from the Gates Foundation and support for a quality control lab from UNICEF, but has not been operational since early 2006 because of a lack of financial support. Fortified salt sells at a significantly higher price than crude salt (8G per lb vs. 4G per scoop of 750 g); thus, sales must be subsidized for the plant to operate. Because of lack of funds, approximately 100 tons of unfortified salt are being stored in the warehouse.

The plant is equipped with 2 fortification units with a nominal capacity 2 x 7 tons per hour. When operating, the actual output is much lower (approximately 2 tons per day) because of the need to air dry and manually sort raw salt and package the fortified product in 1 pound bags. MSPP has designated one fortification unit for iodized salt and one unit for salt that is double fortified with iodine and diethylcarbamazine (DEC) for the elimination of lymphatic filariasis, a parasitic infection that is co-endemic in Haiti with IDD.

The production facility appeared to be clean and well-maintained. The facility had ample lab space, but no lab equipment was present. Consequently, although the target level for iodine (as iodate) was set at 40 +/- 10 ppm, there was no documentation that this level had been achieved when the plant was operating.

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FINDINGS OF THE MISSION

A cross cutting theme for Mission members was the lack of strong national leadership. Despite claims by MSPP, the mission observed that this leadership has not translated into concrete advocacy, political commitment, inter-sectoral coordination and recognition of control of IDD and USI as a national priority. The absence of leadership provides an explanation, at least in part for the following observations:

- **Unclear roles and responsibilities at governmental level.** The Ministries of Agriculture and Commerce, though interested in salt production and improvements in production technology, had little or no direct role in the battle against IDD.
- **Limited awareness of IDD and importance of iodized salt among partners and donors.** Donors are willing to support efforts to eliminate IDD, but only if the government defines this as a priority in integrated action plans
- **Lack of champion for IDD/USI.** Iodine deficiency has not found a national figure to champion the programme; consequently, Haiti is among a very few countries in the world that have no legislation on salt iodization.
- **Lack of support and involvement of medical professionals and civic society.** It is not clear if leading health professionals support the IDD/USI programme nor is there any involvement of civic organizations, consumer groups or NGOs.

- **The absence of current data.** This was true regarding salt production, supply and imports (latest salt flow analysis - 1995). Similarly, there was no inventory of salt producers or associations. Lack of data makes policy decisions much more difficult.
- **Limited interagency coordination.** For example, AMURT and ACF were funded by WFP and USAID to undertake pond rehabilitation to restore income production, but not to increase the quality of the salt that was produced. Consequently, rehabilitated ponds continue to produce salt of low quality that is not likely to be suitable for iodization.

Overall Recommendations

Iodine deficiency is an urgent public health problem; it is estimated that 250,000 infants every year are born unprotected against IDD in Haiti and this should be addressed immediately by the government. To eliminate IDD, the mission recommends that the government and its partners take steps to improve the quality and quantity of locally produced and iodized salt and to make iodized salt available at a price that the population can afford. Development of capacity for rational salt production will require time as well as financial and human resources; consequently interim measures must be considered in order to protect the vulnerable population from IDD while the salt iodization initiative is being developed/established.

Appropriate interim measures include:

1) complementary importation of iodized salt; and/or 2) protection of the population at higher risk by iodine supplementation. If imported salt is used, either as an interim or long term measure to address IDD, the government should assure that all imported salt is adequately iodized through appropriate legislation and monitoring of iodine levels in imports. In parallel, intensive health education efforts should be undertaken to inform consumers about the nutritional requirements for iodine and the health benefits of consumption of iodized salt.

Improved coordination of government, private sector (salt producers) and international agencies is a critical component of the effort to eliminate IDD. An inter-ministerial and inter-sectoral committee (national IDD coalition) should be developed to establish elimination of IDD as a government priority, to outline roles of the various partners, to guarantee that at-risk populations are adequately protected from IDD, to develop timelines to improve local salt production and to monitor progress in eliminating IDD. A national coalition with clearly defined roles and responsibilities can play a major, driving role in planning and promotion of collaborative work.

Specific Recommendations

The lack of locally produced salt of adequate quality is the single greatest obstacle to USI. To improve local salt production, members of the mission had the following specific recommendations:

- Rehabilitation efforts must be focused on improving salt production using series operations, instead of restoring single pond operations;
- Mapping should be done of locations suitable for series operation;

- The government of Haiti and partners should stimulate investment in modern operations in these settings.

To improve access to adequately iodized salt, the mission recommends:

- Iodization capacity should be established at production sites to reduce transportation costs and improve efficiency;
- Production and fortification facilities should implement quality assurance procedures;
- Fortification facilities should use improved packaging (e.g., LDPE) to reduce loss of iodine;
- Improved packaging capacity should be developed to reduce the cost of consumer packaging and reduce the dependency on subsidies for fortified salt.

Lack of consumer understanding of the requirements for iodine in the diet and the current practice of washing salt before use serve as additional obstacles to the goal of eliminating IDD. A concerted Information, Education and Communication (IEC) campaign is needed to:

- Promote universal use of iodized salt
- Change consumer behavior with respect to washing salt
- Promote use of consumer packaging for iodized salt.

Ideally, the implementation of these recommendations will take no more than two years. To immediately protect the population from IDD, the mission recommends that the following interim measures:

- Iodine supplementation for the population at higher risk, including pregnant and lactating women, women of reproductive age (15-49 years) and children below 2 years of age.

- Temporary complementary importation of iodized salt (approximately, 30,000 to 40,000 metric tons per year) to meet the population demand.

The terms of reference for this mission did not include a focus on the co-fortification of salt with iodine and DEC. As noted above, the current plant included separate production lines for iodized-salt and double-fortified salt. Mission members were concerned that production of competing products would not serve the best interests of either the iodization program or the filariasis program. This issue should be addressed by the inter-sectoral committee.

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ANNEX 1 Mission Agenda

Date	Time	Activity	Location
Saturday, November 4	pm	Arrival participants	International Airport
Sunday, November 5	pm	Arrival participants	International Airport
	18:00	Security Briefing	Hotel Montana
	19:30	Mission Group Diner (Informal)	Hotel Montana restaurant
Monday, November 6	8:00	Briefing with WFP and UNICEF Country Directors	Salle Conférence PAM
		Courtesy Visit – Health Minister	MSPP
	14:00	Travel to Artibonite Department (overland)	
	18:00	Presentation by AMURT /ACF on salt ponds rehabilitation efforts	Salle réunion - MARNDR
	20:00	Night in Gonaives Hotel Chachou	
Tuesday, November 7	am	Visit salt production sites	Gonaives (Raboteau)
		Visit rational salt production site COPSIG	Outskirt of Gonaives
	pm	Return to Port au Prince (overland)	
Wednesday, November 8	am	Departure for the Visit salt fortification facility	Cite Militaire
		Visit Ministries (MARNDR, MCI, MEF)	
Thursday, November 9	pm	Visit representatives of WHO and FAO	
		8:00	Visit World Bank
	10:00	Visit Canadian Cooperation	Canadian Embassy
	pm	Visit French Cooperation	
Friday, November 10	9:00	Debriefing	Hotel Montana
	pm	Departure participants	International Airport



The Network for Sustained Elimination of Iodine Deficiency identified Haiti as a priority country for the development of a program to eliminate iodine deficiency disorders (IDD). In an effort to stimulate action toward the elimination of IDD, the Network sponsored a mission of international experts to Haiti.

ANNEX 2 Summary of Discussions and Commitments

Meetings with Ministry of Health (MSSP)

Director General, Dr. Gabriel Thimonthée
Dr. Jocelyn Marhone, Director Nutrition
Minister of Health (Debriefing at Montana Hotel)

- A great concern voiced by all MSPP officials is the importation of salt. This is not on their agenda.
- MSPP sees its role in defining a policy for salt iodization, preparing guidelines for its implementation and promoting preventive measures for all types of IDD.
- MSPP will encourage the creation of inter-ministerial committee on salt iodization. DG will talk to the Minister. Leadership (Prime Minister or other) and representation level needs to be discussed
- Need assistance in designing a monitoring and evaluation system
- Help government to develop a proper legislation; there is a lack of legislation in the health sector
- Need know-how to improve salt production and quality of salt, therefore emphasizing training/TA for national; salt producers to revamp their salt production activities
- Both DG and Minister referred to the workshop held on 12 September 2006 as an important event where government, private sector and civic society identified priority actions and pledged political commitments to support USI. The three resolutions emanating from the workshop were: interest in developing activities for local salt iodization; improving quality of salt; and need for and appreciation of contribution in technology transfer (See detailed account of September workshop – Annex 4).

Meeting with Ministry of Agriculture (MARNDR)

- Because salt is an important national resource, the Secretary General of the Ministry of Agriculture (MARNDR) emphasized the need to increase domestic production of salt.
- Ministry of Agriculture through its “Direction Generale” and Artibonite and North East Department Directors is responsible for organization and technical supervision of salt producers (civil engineering, salt producers organization into cooperatives, etc.). While MARNDR intervenes in the upstream of the salt sector, the Ministry of Trade and Industry acts downstream through the organization of salt commercialization, quality control of local and imported salt and ensuring consumer protection
- Based on a previous study done by UNODI, MARNDR thinks that Haiti has the potential of producing salt year round (one harvest every 15-22 days) and that it can be even a salt exporter.
- In response to whether the MARNDR has a plan of action to improve and modernize the salt industry sector, the MARNDR affirms that it has the institutional capacity (manpower, supervision) to do so but not the financial resources. This needs a huge investment programme that goes beyond the current meager resources of the Ministry
- MARNDR is committed to use every means to intensify local production and minimize salt imports
- The Ministry recognized the need for a strong political commitment to eliminate IDD. This commitment can be materialized in the creation of an inter-ministerial committee. The 3 frontline ministries are Ministry of Health, Ministry of Agriculture and Ministry of Trade and Industry



- The TORs of the committee should be clarified. In general, inter-ministerial committees are hosted either at the Prime Minister or the Planning Minister office. Other ministries should be included such as Ministry of Education, Ministry of Women and Ministry of Finances.

Meeting with Ministry of Trade and Industry (MCI)

- The Ministry and the technical "Direction de Controle" are committed to the preparation of standards for salt and will call on all other ministries and parties concerned to collaborate
- To establish a legal context for the quality control of salt, the Ministry is working on a global legislative framework through a Food Control Act, that will define roles and responsibilities and establish the base for inspection, control and enforcement
- The Minister suggested that a meeting be organized with experts from various fields to think and reflect on the issues of salt production, quality and iodization, identify directions and strategies and advise

government on immediate and long-term actions

- Consumer education is essential to salt iodization as washing salt regardless of its quality and purity level is rooted in the Haitian culture. Public sensitization, awareness raising and educational efforts should go hand in hand with improving quality of salt to make salt iodization programme successful.

FAO

- FAO is interested in supporting salt iodization through providing technical expertise and assistance in quality control, standard development and formulation of legislation and in institutional support.
- FAO is working with MARNDR as its prime counterpart had planned a technical consultancy on salt but has been postponed due to the changing structure in the Ministry.

FAO suggested working closely with WFP and UNICEF on salt iodization and is open to consideration of a mid-term technical support if needed and requested by the Ministry of Agriculture.

CONTACTING THE NETWORK

Requests for information or assistance should be addressed to the Network Secretariat

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