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HIGH-LEVEL SEMINAR-WORKSHOP ON THE CONTROL OF IODINE DEFICIENCY DISORDERS (IDD) IN CENTRAL AMERICA OCTOBER 1993

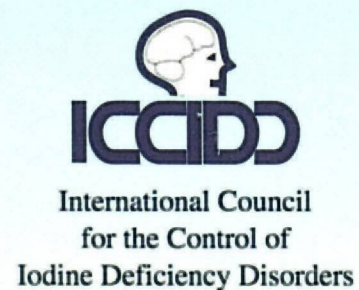


CIDA

**MICRONUTRIENT
INITIATIVE**



United Nations Children's Fund



International Council
for the Control of
Iodine Deficiency Disorders

ACKNOWLEDGEMENTS

We are particularly appreciative of the strong support provided for the execution of the High-level Seminar-Workshop on the Control of Iodine Deficiency Disorders (IDD) in Central America, to the following institutions:

- ICC/IDD, International Council for the Control of Iodine Deficiency Disorders
- CIDA/Canada, Canada's International Development Agency
- Micronutrient Initiative Canada
- INCAP, Central American Institute for Nutrition
- Salt Producers Association of Central America, Panamá and Belize
- UNICEF, United Nations Children's Fund

I. EXECUTIVE SUMMARY

Central American countries made important strides toward eliminating iodine deficiency diseases during the 1960s and '70s, when laws and regulations to enforce salt iodination were passed and monitoring for the presence of deficiency-related disorders was carried out. However, during the course of the 1980s these efforts largely came to a halt. Surveys taken during the early 1990s indicated a sharp resurgence of the physical and mental problems associated with lack of iodine in the diet. As a result, several concerned agencies have launched an effort to call high-level attention to this growing public health risk.

The critical importance of micronutrients such as iodine to health has been receiving renewed attention from the international health community in recent years. In 1991 a conference on micronutrients was held in Montreal, Canada, and the same subject was addressed in Rome at the International Conference on Nutrition in 1992. UNICEF has adopted the universal iodination of salt as a worldwide goal to be achieved by the end of 1995, while the elimination of iodine deficiency disorders (IDDs) is to be reached by the year 2000.

In October, 1993, three agencies (Canada's International Development Agency, CIDA; the International Council for the Control of Iodine Deficiency Disorders, ICCIDD; and the Central American Institute for Nutrition, INCAP) joined UNICEF in sponsoring a three-day High-Level Central American Workshop on salt iodination

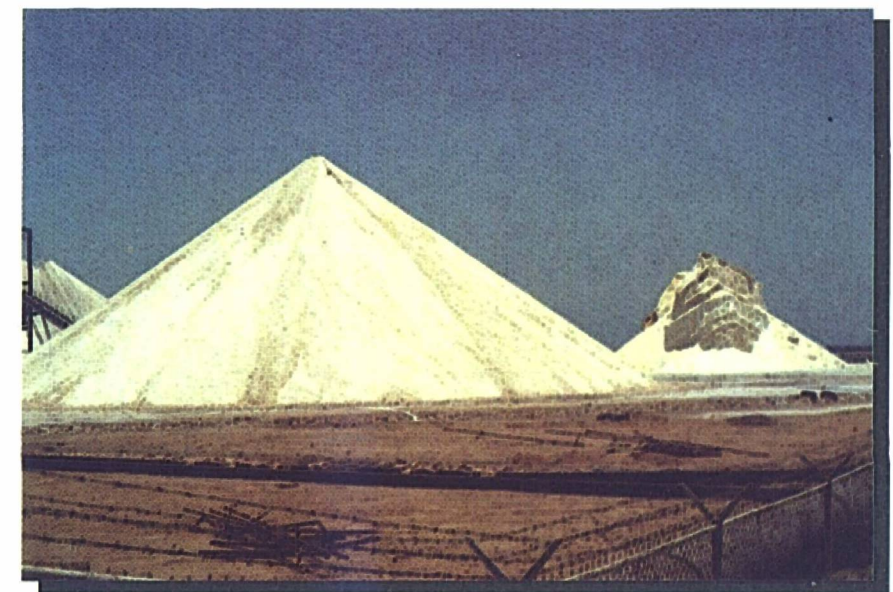
and IDD control, bringing together key actors from Central America to reach agreements on how best to achieve these goals. The meeting was envisioned as an important step toward refocusing government attention on the issue of iodination.

The salt producers and government authorities present at the Workshop agreed to take the steps required to meet the goals set for 1995 and 2000. Important alliances were forged between the public and private sectors and among salt producers from the different countries. During the Workshop, these actors identified problems, worked toward solutions, and made commitments aimed at overcoming existing obstacles to the universal iodination of salt. With technical and financial assistance from international and regional organizations, Workshop participants pledged at the end of the meeting that:

- ** Public education campaigns will be launched to inform consumers of the consequences of consuming uniodized salt;
- * Adequate credit will be made available to salt producers to modernize their facilities and equipment and to import iodide solution;
- ** Governments will: revitalize their monitoring and epidemiological surveillance efforts, update legislation and regulations covering iodination, intensify enforcement efforts, and increase inter-sectorial coordination.

The salt producers present at the meeting, more-

over, formed a new and unique regional confederation aimed at increased sharing of technical information and experience regarding iodination. Both the Central American Parliament and the presidents of the region, meeting the same month that the Workshop took place, expressed support for this new private sector initiative and commitment to the goals set by UNICEF for 1995 and the year 2000.



II. IODIZED SALT

WHAT'S THE FUSS ALL ABOUT?

In a small mountain village in the Guatemalan highlands, a pregnant cow lost her second calf.

Near the Salvadoran border with Honduras, a peasant family gathered around its youngest child, wondering why its appearance was so strange and why the child wasn't developing like the others.

A middle-aged woman in Azuero, Panama, began to wear a scarf to cover the unsightly bulge growing in her throat.



A teacher in Comayagua, Honduras, noticed that several of her pupils were unable to learn at a normal pace and lacked interest in school.

What common thread binds these diverse occurrences? One simple fact: the cow, the severely and mildly retarded children, and the woman with a large goitre all lack iodine in their diets. In all, some 14% of the Central American popu-

lation (around 4.6 million people) have goitres, and many, many more suffer reduced intelligence as a result of insufficient intake of iodized salt.

Central America's children, already battered by poverty and warfare, are falling behind in the intelligence race for lack of a simple chemical compound. The lack of iodized salt in their diets is robbing children of mental capacity, causing them to fail in school, and making many of them irreparably mentally retarded or physically disabled.

The solution appears ridiculously simple. Add iodine to the salt consumed in the region and thereby prevent or reduce the incidence of severe mental retardation, stillbirths, goitre, deaf-mutism, and loss of intelligence. Only about one teaspoon of iodine in a lifetime is needed to prevent the illnesses associated with iodine deficiency.

Goitre is the most visible and easily measured manifestation of IDD, but not the most serious.



The most widespread effect of IDD is impaired mental capacity and slow learning and cretinism, children are severely retarded but also may be deaf, mute and spastic, being severe and irreversible. Mothers lacking in iodine have more stillbirths and spontaneous abortions, and their children are more vulnerable to fatal infections. But the most insidious and long-term impact lies in the fact that children who lack iodine in their diets will have impaired mental capacity throughout their lifetime. Studies undertaken worldwide reveal that people whose iodine intake is low tend to be apathetic and to perform poorly in school and at work. A study published by UNICEF, IDD-ICC and WHO reported:

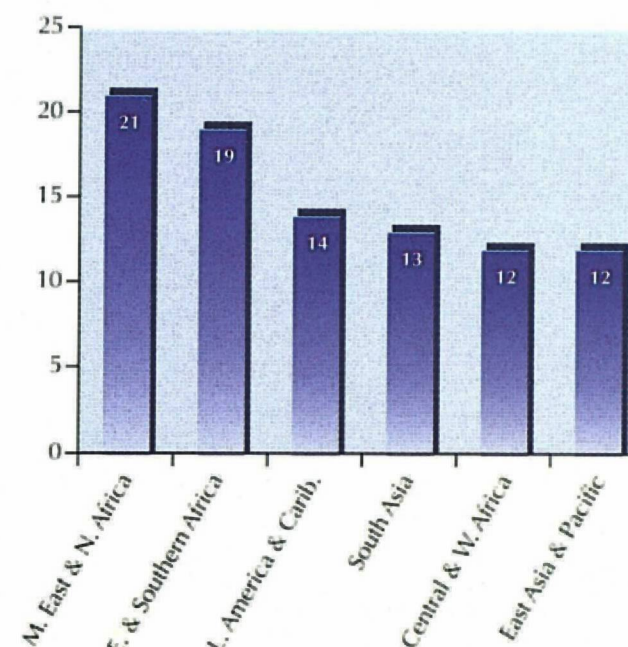
Iodine deficiency affects the socioeconomic development of a community in two ways. First, the people are mentally slower and less vigorous. They are harder to educate and harder to motivate, and thus they are less productive in their work.



Secondly...domestic animals suffer from iodine deficiency in much the same way that people do. They also have more abortions and are frequently sterile.

The data recently released states the importance of iodine to the human diet, particularly to proper development of the thyroid gland, was first observed more than a century ago. In the 1920s, communities in the United States began iodizing salt to evaluate its effect on the population. When the results proved beneficial, many

Percentage of school-age children with goitre (enlargement of the thyroid gland caused by iodine deficiency).



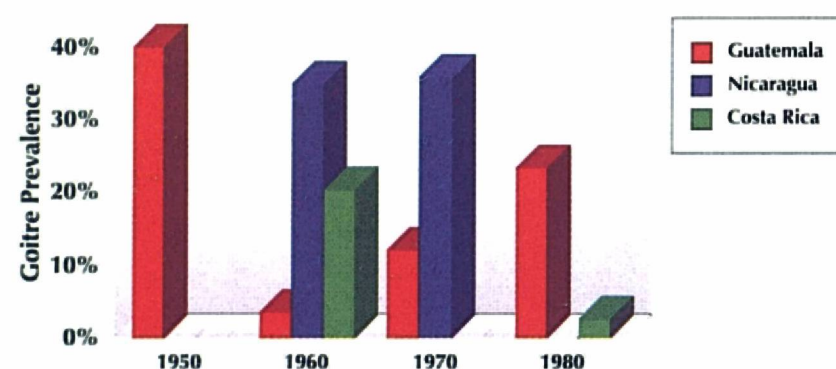
Source: Who, Global prevalence of iodine deficiency disorders, 1993

countries produced legislation and regulations calling for the addition of iodine to salt to prevent hypothyroidism. Although iodine can be administered other ways, salt has been judged the most effective medium for ensuring iodine intake. Almost everybody consumes salt, irrespective of culture, nationality, or economic status. Salt is inexpensive, and is normally consumed with sufficient regularity to ensure that the human requirement for iodine can be met in the course of normal consumption patterns.

Unfortunately, the elimination of iodine deficiency diseases (IDDs) has proven to be more difficult than anticipated, particularly in developing countries. Central America is a case in point. During the 1950s and '60s, in an effort to eradicate

IDD, most countries in the region developed legislation requiring national producers to iodize salt. The results were impressive: marked improvements were achieved within a decade. For a variety of reasons, however, monitoring and enforcement efforts slackened during the 1980s. When, with UNICEF support, national health agencies performed new surveys in the late '80s, it became clear that Central America¹ was experiencing renewed health problems related to iodine deficiency.

HISTORICAL EVOLUTION GOITRE PREVALENCE
Guatemala, Nicaragua and Costa Rica



As the devastating consequences of IDD have become better known, it has become increasingly clear that iodine intake is not simply a health question, but an issue of the utmost importance to overall socio-economic development. No country can afford to permit millions of children to lose a portion of their intelligence and grow up to be slow-learning, apathetic adults.

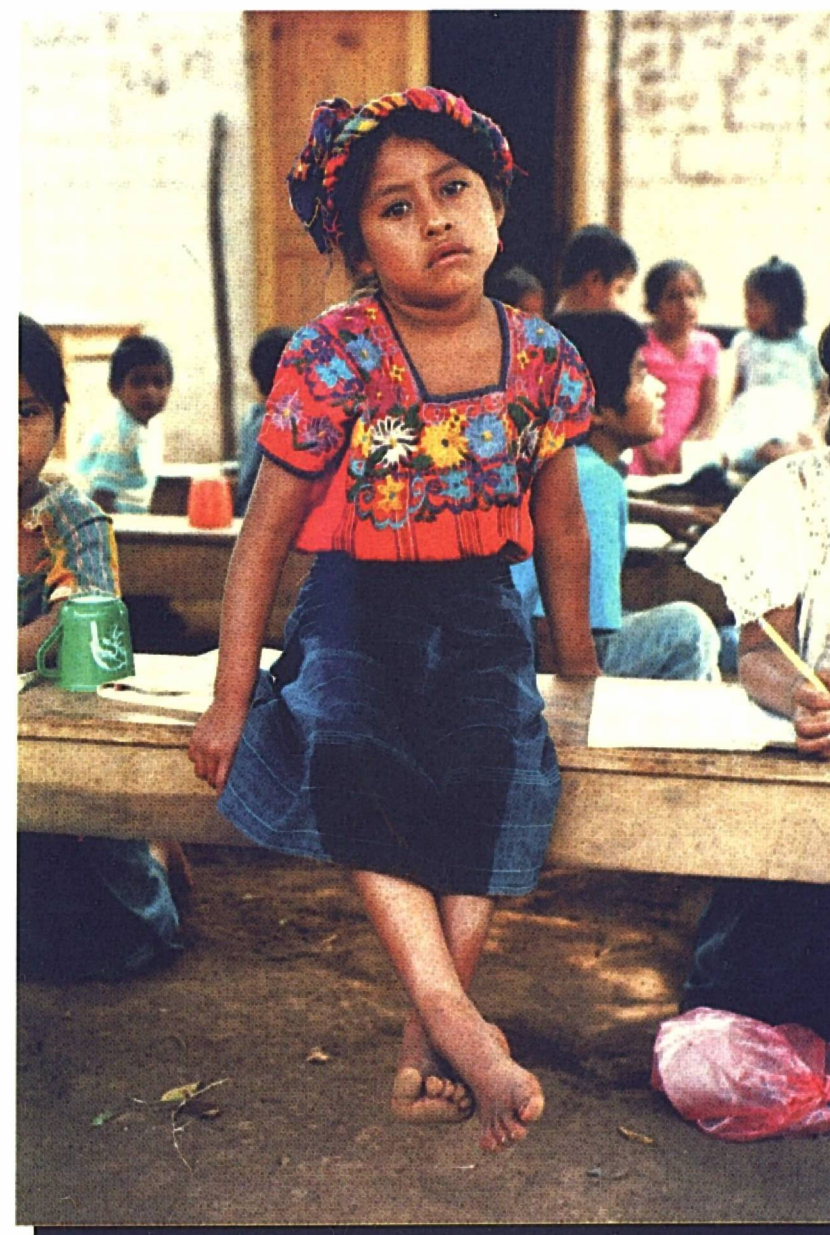
Elimination of IDD by the year 2000 one of

UNICEF's worldwide goals. As an important preliminary step, UNICEF is working hand-in-hand with governments and regional and international agencies to promote the iodination of salt. UNICEF has worked jointly with the World Health Organization and other concerned agencies to sponsor conferences on IDD eradication in Africa and the Philippines to raise the level of understanding in areas particularly hard-hit by iodine deficiency. In Central America, the first priority was to focus high-level attention on the issue and recapture the momentum begun two decades earlier.

In late 1991, during a Central American presidential summit meeting focused on "Youth and Human Development," the political leaders of the region agreed to look more closely at the effect that missing micronutrients is having on their youth. By the end of 1992, Central American presidents were ready to include the goal of eliminating IDD in their National Action Plans, which are dedicated to increasing investment in social programmes. Government agencies involved in monitoring IDD and promoting iodination began, with the support of UNICEF and INCAP, to carry out detailed analysis of IDD prevalence in each country of the region.

Universal salt iodination by the end of 1995 is a crucial first step toward this goal. The consumption of iodized salt is inextricably linked to elimi-

nating IDD; moreover, within a year of ensuring a steady and continuous supply of iodized salt to a given population, the birth of cretins and children with subnormal mental and physical development due to iodine deficiency will decrease markedly; goitres in children will shrink and even disappear; and children will be more active and perform better at school. Salt iodination, then, provides immediate, measurable results and benefits.



¹ This report refers to the Central American countries of Guatemala, El Salvador, Nicaragua, Costa Rica, Honduras, and Panama. Belize is not included in the regional discussion because the problem of iodine deficiency has not yet been studied in that country. However, representatives from Belize attended the Workshop and plan to begin an analysis of their country's salt supply and the prevalence of IDD.

III. IF IT'S SO SIMPLE, LET'S GET MOVING

In mid-October 1993, UNICEF, the Canadian International Development Assistance agency (CIDA), the International Council for the Control of Iodine Deficiency Disorders (ICCIDD, an non-governmental organization), and the Nutrition Institute for Central America and Panama (INCAP) joined hands to sponsor a High-Level Central American Workshop on IDD Control, which brought government authorities and salt producers from six Central American countries together with international experts in the field of iodination. The purpose of the three-day workshop, held in Guatemala City, was to create a consensus among these key actors on how to advance the effort to iodize the region's salt over the next two years. Through intense discussion and debate, the group was to define problems, set goals, identify obstacles, and determine how these obstacles could be overcome.

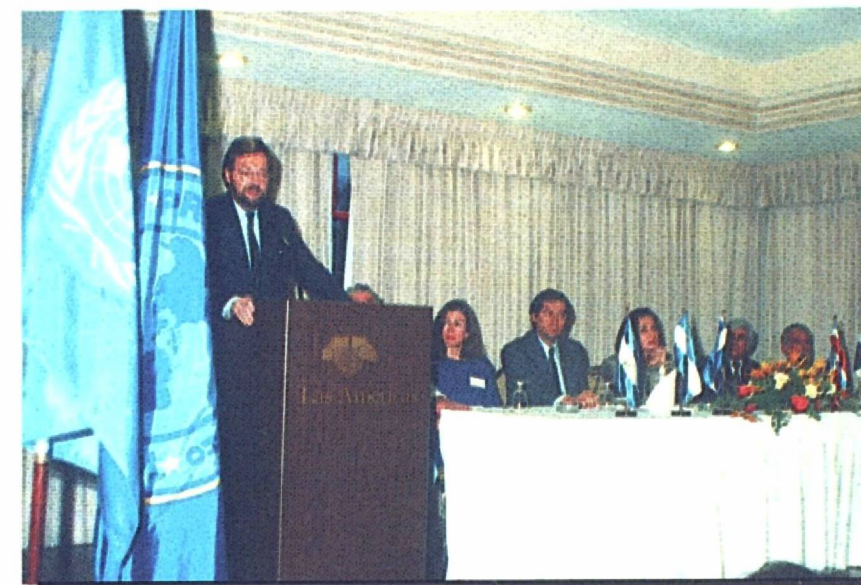


The presence of both government authorities and

salt industry representatives at the meeting was highly significant. Although these two social actors hold the primary responsibility and power to ensure that goals are reached, they have not, in the past, worked cooperatively. When laws and regulations regarding salt iodination were originally developed and promulgated in past decades, for example, salt producers were not invited to participate in the process. Their needs, problems, and capabilities were not taken into consideration. Regulations, as a result, were often seen as an imposition rather than a joint enterprise. Ensuring cooperation by involving producers in the initial stages was a critical step toward ensuring the success of the new IDD initiative.

The Workshop was designed so that in addition to a general discussion of problems faced in each country, salt producers, government authorities, and technical personnel met in separate groups and, later, met together on a country-by-country basis to share the findings of the sector groups and develop a set of realistic conclusions and recommendations for each country present.

During an introductory address to those gathered at the three-day meeting, Per Engebak, representative of the UNICEF pointed out not only that iodized salt costs only pennies more to produce than salt without iodine, but that adding iodine to salt is eminently feasible.



"There is probably no other more tangible intervention, requiring fewer resources to achieve a major impact on improving the health of Central America's population, than iodizing salt. Salt iodination is a highly achievable short-run goal," Engebak stressed.

Dr. Antonia Novello, former Surgeon-General of the United States and currently a special assistant to the UNICEF Executive Director for programmes for health and nutrition, also exhorted the Workshop participants to move ahead swiftly toward solutions. To the salt producers, she said: "You can make a real, tangible, measurable contribution to the human and economic development of your countries." The Central America Workshop, with its varied participants, Dr. Novello continued, illustrates multisectorial social policy planning at its most productive: "Science tells us what can be done, ethics tell us what ought to be done, and political leadership and public demand ensure that the work gets done."

The message from these and other international experts addressing the meeting was crystal clear: Control of IDD through salt iodination is something that can, should, and must be done. The challenge to those attending the Workshop was to develop the strategies necessary to proceed.

● OBSTACLES TO IODINATION IN CENTRAL AMERICA

Although the countries represented at the Workshop have different histories in regard to salt iodination efforts and varying levels of IDD prevalence, common problems far outweigh these distinctions. The problem areas cited most frequently during country- and sector-specific presentations were:



- ** Inadequate or outdated legislation and/or regulations
- ** Inadequate monitoring of salt iodination
- ** Lack of communication between producers

and government

- ** Lack of modernization within the salt industry
- ** Lack of consumer awareness of the importance of iodized salt
- ** Lack of financial resources



A major obstacle identified by all participants in the Workshop is the fact that the region's consumers are largely unaware of the need for iodine in their diets. Because of pervasive poverty, people tend to purchase the cheapest product available, and uniodized salt is generally sold at slightly lower prices. Until consumers become aware of the health consequences and begin to seek and demand iodized salt, efforts to protect the population against IDD will be more difficult. Consumer education efforts are hampered by high illiteracy rates in most countries of the region. At the same time, no country has made a concerted effort or taken effective measures to educate consumers about IDD and iodized salt.

An underlying source of many of the obstacles cited was the waning of political commitment to iodination that took place during the 1980s. This problem, in turn, stemmed in part from dwindling financial resources. Several Central American governments have recently undergone (or are still undergoing) intense civil conflicts that diverted funds into military budgets and away from health and other social areas. The region was also hard-hit by global recession during the 1980s, which reduced the availability of funds for government programmes overall.



Facing a myriad of socio-economic problems and financial needs, governments ceased to view salt iodination as a priority. As a result of this loss of focus by governments on iodination and IDD, laboratory facilities for testing salt were not constructed or maintained; the credit and foreign exchange needs of salt producers were overlooked; those assigned to carry out monitoring

and surveillance were not adequately trained; allotted resources were not adequate to carry out ongoing epidemiological surveillance; and public education efforts were not carried out.

At the same time, while Central American governments and salt producers had a general awareness of the need for iodination, most failed to understand the urgency of the issue and the profound socio-economic consequences. This lack of awareness led to a situation in which salt producers began to cut corners, inspectors became vulnerable to corruption and bribery, while higher level ministry personnel focused on other, more visible, problems.

Such factors are largely responsible for the fact that in a country such as Guatemala, which enacted legislation to ensure iodination as early as the 1950s, efforts to maintain surveillance and control over salt production and distribution slackened off after the initial decade of implementation. The graph above demonstrates clearly that when salt iodination was enforced, IDD prevalence declined, but when complacency set in and monitoring fell behind, disease rates began climbing. Today, Guatemala has the second highest prevalence rate for goitre in Central America. About one-third of all children born in Guatemala do not receive enough iodine; one-third of these, about 40,000 children per year,

suffer some degree of mental retardation. The pattern was similar in most countries of Central America. During the 1960's and early '70s, a time of relative peace and prosperity,

● GUATEMALA CASE

Awareness of iodine deficiency in Central America dates back to the 1950s when actions for its prevention and control were initiated. Parallel monitoring and surveillance of programmes was introduced simultaneously, but without the appropriate frequency and methodology -- and without a supporting public education programme. These deficiencies led to irregular and efficient execution, resulting in the current situation of unsatisfactory prevalence levels in most countries.

Guatemala provides an illustration of this situation. Having been the first Central American country to enact legislation, prevalence was reduced from 38 per cent to 5.2 per cent in ten years (1954-1965). However, by 1987 the level had returned to 20.4 per cent. Other countries in the region show a similar resurgence of iodine deficiency, which now constitutes a severe public

iodination programmes were established and IDD rates began to fall, but as conflicts intensified and economies were increasingly squeezed in the late 1970s and throughout the 1980s, government commitment flagged, surveillance efforts failed, and, as a result, IDD prevalence surged upward.

In addition to these overall, common problems each country has its own particular experiences and difficulties. In Costa Rica, for example, the salt industry is largely in the hands of two large cooperatives, both of which iodize their salt. But some smaller producers lack modern machinery. They often sell their product, unprocessed and uniodized, to people living nearby. Thus there are pockets of high IDD prevalence in and around salt-producing areas. In Costa Rica as a whole, only about 3% of the population shows signs of goitre, but in such pockets rates are as high as 11%.

Due to the same phenomenon, Panama also has "pockets" where IDD rates are well above the national norm. A related problem is that Panama, like most countries in the region, has no regulations covering salt intended for animal consumption. Consumers living near salt-producing areas often obtain uniodized salt intended for livestock. Since cattle-ranching is a major activi-

² Salt iodination requires a basic chemical mix and some relatively simple equipment, such as measuring devices, feeders, and mixers. Although manual mixing is possible, it is not ideal. In Central America, the normal procedure is to add an iodine compound (potassium iodate) to salt during the production process. The dry compound can be added via a feeder chute and mixed into the refined salt, or mixed with water and sprayed on the salt. Where salt is produced in a refinery, existing machinery is usually adequate to utilize the dry compound. More problematic is iodination of salt that never reaches a modern refinery, but rather is produced without even the most basic machinery.

ty throughout Central America, this problem becomes a serious one.

In Honduras and most other Central American countries, salt is produced through solar evaporation of sea salt by mini-producers using very rudimentary methods. When and if iodine is added², the mixing work is performed manually, on the ground. The resultant product is full of impurities and the iodine fortification mixture is not always well integrated into the salt. Salt is also packaged manually, as is generally the case with small and large producers. Since the iodine fortification mixture deteriorates under certain conditions—humidity, porous packaging material, etc.—salt producers require modern equipment both to add the iodide mixture and to package the final product.

Another important obstacle to effective iodination is related to obtaining the iodide mixture (potassium iodate). Some producers lack the resources for importing the mixture; in other countries, large producers import potassium iodate and resell it at monopoly prices or refuse to sell to smaller producers. Only in Nicaragua and Costa Rica do governments import potassium iodate and supply producers at cost.

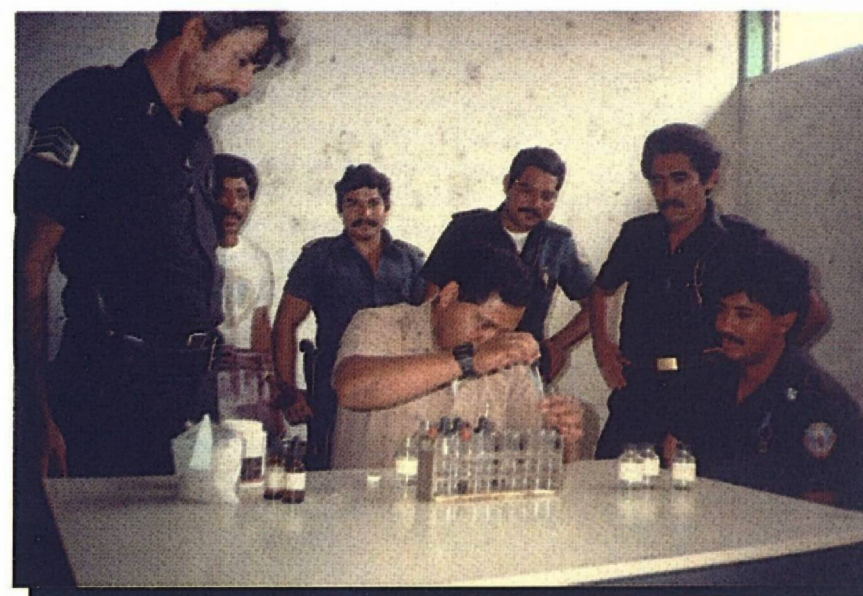
One of the problems facing governments in their efforts to coordinate with the salt industry is the existence of small-scale producers, many of whom operate in remote, isolated areas, coupled

with the lack of financial resources to support these groups and lack of political interest. Although these mini-producers represent only a small percentage of the total salt produced in Central America, when they are not organized into an association governments have difficulty reaching them with information about the need for iodination and hampers efforts to monitor salt quality.

Another obstacle faced by the countries of Central America is their differing standards for iodized salt. While three countries have set the legal level of iodine in salt at 30-50 parts per million (ppm), others have set the rate at 60-100 ppm. Thus salt considered to be iodized in one country is not so in other. Salt crosses national borders in both iodized and uniodized form; without a standard definition for adequate iodination—and without clear and comprehensible labeling—consumers have no guide for identifying the better product.

The problems facing governments trying to undertake IDD eradication are compounded by the fact that different government agencies often have jurisdiction over different parts of the process. It is a classic example of too many cooks spoiling the broth—or, lack of coordination resulting in ineffective implementation. In Panama and Honduras, for example, health ministries are in charge of monitoring IDD prevalence rates, but salt surveillance is carried out by

understaffed food control divisions with little knowledge of how to test for iodination or the vital importance of such testing. Customs and border police are also involved in the effort, but lack of understanding of the importance of iodination undermine their effectiveness.



IV. ADVANCING TOWARD SOLUTIONS



By the end of the 80's and beginning of the 90's, the results of several studies showed an increase in the prevalence of endemic goitre in the Central American countries. These findings begin to arouse a renewed technical and political interest, which was made explicit in the National Plans of Action ratified by the Central American presidents in the Tegucigalpa Commitment in 1991. A resulting effort was the initiative of some activities in Honduras, Guatemala and El Salvador. The political commitment around universal salt iodination is mutually reached in a Presidential Mini-summit (Honduras, Guatemala, Nicaragua and El Salvador) held in El Salvador in August 1993. This initiative was taken again in the XIV Presidential Summit of October in Guatemala and firmer commitments were agreed on by the Presidents to Universalization of salt iodination by 1996 in line with the mid-term goals. The main goal of the Central American Workshop was to assist Central American governments to move from the planning stage to that of implementation by identifying the remaining

obstacles and devising strategies for overcoming them. During the three days of meetings, specific strategies were developed to reach the twin goals of iodizing salt and eradicating IDD. Overall, the strategies fell into five general categories:

1. Education of consumers, producers, and political and civic leaders about the consequences of consuming uniodized salt;
2. Increased coordination among the different government sectors directly involved in iodination and IDD eradication, and between government and producers;
3. Government assistance to the salt industry to obtain the credit and financing required to modernize facilities and obtain the equipment and materials needed for iodination;
4. Re-evaluation of existing laws and regulations to bring them up to date, ensure their internal coherence, and ensure that they are widely known and enforced within each country;
5. Improved training of government personnel responsible for monitoring and surveillance of salt.

● NEW PLANS FOR REGIONAL COORDINATION

An important step toward future coordination was the founding during the course of the

Workshop of a new, regional association: the Central American Federation of Salt Producers. During the three-day Workshop the producers recognized that they face many similar problems; that some countries have developed solutions and methodologies that could assist others in producing iodized salt; and that they share both a desire to assist in IDD elimination and a need for improved technology. Thus the 13 participating salt industry representatives (who represent over 80% of all salt producers in the region) resolved to work together in the future to seek improvements at the Central American level. The decision to include producers in the Workshop resulted in motivating them to play a leading role in the overall effort.

Workshop participants recommended the establishment of national micronutrient committee and a similar regional body. The Central American Micronutrient Committee is to be led by the vice-ministers of health, and include a representative from each national Micronutrient Committee as well as from international organizations such as UNICEF, WHO, and INCAP. The task assigned to this high-level regional body is that of ensuring continuity and follow-up on issues of importance to iodination and IDD control. The establishment of national micronutrient committees, to be led by a representative from the national health ministry and have representation from other agencies involved in monitoring iodination and IDD prevalence, should ameliorate most existing coordination problems.

Central American countries also committed themselves to establish common standards for iodine content in salt and to work toward designing recognizable logos, so that all iodized salt in Central America can be immediately identified by consumers. Once consumer demand for iodized salt has been achieved through the public education campaign agreed to during the Workshop, the logos will ensure that consumers can distinguish between iodized and uniodized salt, even when salt is imported from another country in the region.

The new federation of salt producers requested and obtained recognition and support from the Central American Parliament (Parlacen), which was meeting in Guatemala at the same time that the Workshop took place. The outgoing president of Parlacen addressed the group, praising their initiative and committing the regional legislative body to support salt producers in their efforts to improve the industry rapidly enough to reach the goal of universal iodination by 1995. In a statement directed to the Central American presidents, Parlacen noted: "The gravity of this problem demands immediate solutions....The solutions are low-cost and within reach."

● TECHNICAL ASSISTANCE

During the Workshop, government authorities and salt producers were able to take advantage of the presence of both international experts and founders to secure promises of future technical

and financial assistance. For example, Dr. M.G. Venkatesh Mannar, a UNICEF consultant in appropriate iodination technology for developing countries, worked closely with the producers to explain the type of low-cost equipment avail-



able; Dr. Sonya Rabeneck, a representative of the Canadian International Development Agency (CIDA), met with those seeking international financial aid for efforts to modernize facilities or improve monitoring and surveillance efforts. In addition, salt producers from Costa Rica, whose

iodination process is the most advanced, offered to provide technical assistance to producers in other countries.

The Workshop also provided a support network for health ministry and other government personnel, who could consult with the UNICEF/IDD program director in Ecuador, where a highly successful eradication programme has been carried out; with Dr. John T. Dunn, Secretary of ICCIDD; or with Richard Trowbridge of the U.S. Center for Disease Control, which offers training workshops on IDD control for technical personnel. Dr. Dunn distributed Spanish-language copies of "A Practical Guide to the Correction of Iodine Deficiency," a concise, down-to-earth handbook that can be used as a technical aid in all countries of the region.

● PUBLIC-PRIVATE SECTOR COMMITMENT

At the end of the Workshop, government and salt industry representatives issued the following joint declaration, which clearly states their commitment to take the measures necessary to eliminate iodine deficiency disorders in Central America.

CONSIDERING THAT:

* Iodine deficiency continues to be a public health problem in the majority of Central American countries;

- * Iodine deficiency diseases limit the human development of our populations;
- * The elimination of iodine deficiency diseases constitutes an investment in human capital;
- * It is the responsibility of civil society to coordinate efforts to guarantee fulfillment of the goal of "Virtual Elimination of Iodine Deficiency Disorders in this Decade;"
- * It is necessary to create a subregional entity to follow through on the development of national programmes and ensure that IDD elimination efforts are sustained;

WE AGREE:

1. To give the highest priority to the elimination of iodine deficiency diseases, strengthening national initiatives to ensure the fulfillment of the goal of universal iodination of salt for human and animal consumption by the end of 1995;
2. To strengthen National Action Plans in order to fulfill commitments to eliminate IDD by assigning to this programme the human, institutional, and financial resources required;
3. To ask friendly nations, international agencies and entities (especially UNICEF, WHO, INCAP, and ICCIDD) and nongovernmental organizations to provide technical and financial assistance to support IDD elimination programmes

and to ensure that they are both comprehensive and sustainable;

4. To establish mechanisms of coordination, exchange, and cooperation among different institutions and sectors involved in the IDD programme in the countries of the region, and to promote technical cooperation among countries.
5. To evaluate the progress of the programmes, monitor the sustained eradication of IDD, and verify the universal consumption of iodized salt for human and animal consumption through testing of urine elimination levels. INCAP will be invited to carry out ongoing testing for iodine levels among the populations.

By bringing together the public and private sector actors most closely involved in the twin issues of salt iodination and IDD elimination, the Workshop exposed each side to the obstacles and challenges facing the other and stimulated a new willingness to work together. Government representatives were made aware of the constraints facing the private sector, while salt producers were exposed to the obstacles faced by their governments, as well as successful efforts in other countries.

Urged on by the warnings of international health experts, and encouraged by the suggestions of technical specialists, Workshop participants drew up conclusions and recommendations detailing the goals each country seeks to achieve in the

short run and the specific obstacles to be overcome. The country groups analyzed what could be accomplished with available resources -internal and external- and pinpointed areas where technical and financial assistance will be needed. The areas requiring the largest amount of outside assistance—both financial and technical—are those of obtaining equipment for the iodination process and improving national capacity to monitor both salt iodination levels and IDD prevalence. The salt producers of the different Central American countries are aware of the need to join actions and look for access to national and international credits.

"As we dream new dreams in this age when miracles now seem possible, let us focus on the lives of those people, and especially on the children who will inherit this world. Let us work with a new urgency and imagine what kind of world we could create for them over the coming generation... Elimination of iodine deficiency diseases is an important step in this direction."

APPENDIX I

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APPENDIX II

Workshop Agenda

HIGH-LEVEL SEMINAR-WORKSHOP ON THE CONTROL OF IODINE DEFICIENCY DISORDERS (IDD) IN CENTRAL AMERICA

26-28 October 1993

● GENERAL OBJECTIVES

1. To ensure solid commitments for action by the political, government (ministries) and private sectors, as well as support from the international cooperation agencies, towards the iodination of salt for human and animal consumption by the end of 1995.

2. To identify the needs for strengthened international cooperation to achieve the objectives and goals set forth in each country's mid-term plan of action.

● SPECIFIC OBJECTIVES

1. To analyze the current situation and the positive and negative experiences of the execution of IDD control programmes in Central America.

2. To analyze factors that would facilitate the elimination of constraints for the execution of IDD programmes.

3. To determine the options and mechanisms that will allow for coordinated efforts by the different

sectors (political, government and private) in each one of the countries, in order to achieve IDD elimination by 1995.

4. To identify in each country the execution, coordination and cooperation elements that would facilitate the administrative, technical and financial management of IDD programmes.

5. To promote regional cooperation mechanisms for the elimination of IDD by 1995.

● AGENDA

Tuesday, 26 October 1993

08:00 - 09:00	Enrollment
09:00 - 09:30	Opening speech (the President of Guatemala)
09:30 - 09:45	Welcome to participants (UNICEF Guatemala)
09:45 - 10:15	IDD Situation in Guatemala - Meeting Objectives (A. Noguera, INCAP)
10:15 - 10:30	Coffee-break
10:30 - 11:00	Good quality production of salt by sea water evaporation and alternative iodination methods (V. Mannar, UNICEF/New York)
11:00 - 11:30	IDD Programmes: lessons learned in Central America (P. Engebak, UNICEF)

11:30 - 12:00	Towards the modernization of the salt industry in Central America: the experience of Costa Rica (COONAPROSAL)
12:00 - 12:30	International commitment (A. Novello)
12:30 - 14:30	Lunch
14:30 - 14:45	Workshop methodology: work method; work group organization (A. Noguera, INCAP)
14:45 - 18:00	Country presentations: Honduras, El Salvador, Panama, Nicaragua, Costa Rica, Guatemala:

- Experiences and current situation of IDD programmes
- Analysis of influence of the different sectors on the success or failure of IDD programmes

15:45 - 16:00	Coffee-break
16:00 - 18:00	Country presentations continued
18:00	Cocktail (Las Americas Hotel)

Wednesday, 27 October 1993

08:00 - 12:00	Analysis of problems and definition of priorities (group work):
	- Identification of problems by sector (political-governmental, private and international agencies)

- Definition of major problems
- Definition of solutions for identified problems (by sector)
- Identification of strategy options to face constraints for IDD programme execution

- Definition of required inter-sectorial cooperation and suggestions to obtain it
- Signature of agreement for the execution of the plans of action

09:45 - 10:00 Coffee-break

10:00 - 12:00 Group work continued

12:00 - 14:30 Lunch

14:30 - 15:45 Discussion and preparation of conclusions and recommendations by group

15:45 - 16:00 Coffee-break

16:00 - 18:30 Plenary meeting

10:00 - 10:15 Coffee-break

11:00 - 12:00 Discussion and preparation of conclusions and recommendations by group

12:00 - 14:30 Lunch

14:30 - 15:30 Plenary meeting

15:30 - 15:45 Coffee-break

15:45 - 17:00 Final workshop recommendations

17:00 - 18:00 Plenary meeting
Closing ceremony

Thursday, 28 October 1993

08:00 - 11:00 Identification of major problems by country in each sector (group work)

- Analysis and selection of strategies and definition of solutions for each identified problem
- Analysis of limitations to plans of action (factors and solutions) and proposed strategies and plan of action adjustments
- Definition of mechanisms and political commitments required for plan of action implementation