

PARTNERSHIP
KEY TO SUCCESS & SUSTAINABILITY
A Development Sector Experience
Bharat Scouts & Guides and ICCIDD



“I would be hard-hearted enough to let the sick die if you can tell me how to prevent others from falling sick” -

Mahatma Gandhi

**Partnerships for Sustaining Elimination of
Iodine Deficiency Disorders in India**

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We thank all those who helped in bringing out this report. Space constraint prohibits us from giving the names of all those involved in this project. We acknowledge the efforts of the team members and officials of the Bharat Scouts & Guides (BSG) and Indian Coalition for Control of Iodine Deficiency Disorders (ICCIDD).

The Editorial Team

15th March, 2004

(World Consumer Day)

Abbreviations Used

AIIMS	- All India Institute of Medical Sciences
ALT	- Assistant Leader Trainer
BSG	- Bharat Scouts & Guides
CCM	- Centre for Community Medicine
DGHS	- Director General of Health Services
DWCD	- Department of Women & Child Development
FAQ	- Frequently Asked Questions
ICCIDD	- Indian Coalition for Control of Iodine Deficiency Disorders
ICMR	- Indian Council of Medical research
IDD	- Iodine Deficiency Disorders
IDDE	- Iodine Deficiency Disorders Elimination
IEC	- Information, Education & Communication
IQ	- Intelligent Quotient, Iodine Quota
M.P.	- Madhya Pradesh
Mg	- milligram
μg	- microgram
MI	- The Micronutrient Initiative
NaCl	- Sodium Chloride
NAI	- National Adventure Institute
NFHS-2	- National Family Health Survey – 2
NGCP	- National Goitre Control Programme
NGO	- Non-Government Organisation
NIDDCP	- National Iodine Deficiency Disorders Control Programme
PFA Act	- Prevention of Food Adulteration Act
Ppm	- parts per million
RCH	- Reproductive and Child Health
SAARC	- South Asia Association for Regional Cooperation
STK	- Salt Testing Kit
TSH	- Thyroid Stimulating hormone
UN	- United Nations
UNICEF	- United Nations Children's Fund
VHAI	- Voluntary Health Association of India
WHO	- World Health Organisation
WOM	- Word of Mouth

Message

Partnership and Collaboration are two key factors contributing to the success of any developmental programme. Sustainable elimination of Iodine Deficiency Disorders (IDD) is one such programme which has been accorded high priority by the Government of India.

The non-governmental organization of International Council for Control of Iodine Deficiency Disorders (ICCIDD) have been associated with this programme since its inception. The mandate of ICCIDD exclusively commits for sustainable elimination of this age-old scourge. ICCIDD staunchly promotes collaborations and partnerships in all its programmes with measurable level of success. One such is the partnership programme with Bharat Scouts and Guides (BSG)– the largest non-governmental organization with global presence.

The partnership programme of BSG and ICCIDD dates back to 1997. This is a quotable example of 'Partnership: Key to success. Therefore, it was felt that this experience should be shared with all the interest groups and stakeholders in such a programme. Thus, this report is brought out for wider communication in order to promote inter-agency collaborations and networking. It is hoped that this experience will help other similarly placed groups working for the welfare of the people, in expanding the spectrum of partnership and collaboration.

Consumption of adequately iodized salt by all is the best means to prevent and control IDD. No doubt that collaborative working will give a definite boost to such a programme of national importance and ensure its sustainability. Strong partnerships between salt producers, governments, scientific groups and civil society organisations at the national level will be key to ensuring that salt iodization is sustained and that iodized salt reaches everyone who needs it. Consumer demand has been underappreciated, but it is critical component of Universal Salt Iodisation (USI)

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Ref. No./B.S.G.

Dated :

MESSAGE

I was very happy to attend programmes for Elimination of Iodine Deficiency Disorders held at the National Headquarters of the Bharat Scouts & Guides, New Delhi on October 7th and 20th October, 2003.

I am glad to note that the efforts which are being made by the ICCIDD Organisation to consume Iodised Salt all over the country are commendable in the direction of growth of healthy and happy citizens.

The Bharat Scouts & Guides will always be ready to contribute by allotting a session in all the important camps and events on this subject and I am sure with the help of literature, slide presentations and expertise of their functionaries provided by ICCIDD, the Bharat Scouts & Guides will be able to contribute a lot to bring the desired awareness at the grass root level.

I wish the programme all success.


(L. M. JAIN)
NATIONAL COMMISSIONER

*vs*December 03

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Dr. A.P. J. Abdul Kalam's speech on his assumption of office as President of the Republic of India

The President, Dr. A.P.J. Abdul Kalam has called upon the countrymen to pay a focused attention towards realizing the vision of transforming India into a 'Developed Nation'. In his speech on assumption of office as President of India at the Central Hall of the Parliament in New Delhi, Dr. Kalam said, "Now we need a movement in the country. This is the time to ignite the minds of the people for this movement. We will work for it. We cannot emerge as a developed nation if we do not learn to transact with speed I realize, small aim is a crime. I will work and sweat for a great vision, the vision of transforming India into a developed nation."

Following is the full text of the speech of the President Dr. Kalam on the occasion:

"Respected Shri Narayananji, Mr. Vice President, Mr. Prime Minister, Mr. Deputy Prime Minister, Chief Justice of India, Speaker of Lok Sabha, Members of the Union Council of Ministers, Governors, Chief Ministers, Deputy Chairperson of Rajya Sabha, Deputy Speaker of Lok Sabha, Members of Parliament, Excellencies, friends and children – my greetings to all of you. When I see in front of me, the distinguished dignitaries including a number of senior diplomats representing their countries and other eminent personalities, a beautiful Thiagarajaswamigal's Keerthana in Sri Raga echoes from my heart Mahaanubhavalu andhariggi vandanamulu" which means, " I salute all the great noble

I thank the Members of Parliament and State Legislatures for having elected me. The endorsement I have received from the nation, giving me the responsibility to realize our shared dream of India with prosperity, harmony and strength is really overwhelming. Ten illustrious personages have adorned this office of the President and contributed to the nation building with their outstanding personal qualities. I salute them all. While I assume the office of the President of Republic of India with humility and gratefully recognizing the immense trust, the people of the country and the political system have reposed in me, I promise to endeavour to fulfill the aspirations of our people.

Indian civilizational heritage is built on universal spirit. India always stood for friendship and extends warm hands to the whole world.

We have made significant achievements in the last fifty years in food production, health sector, higher education, media and mass communication, industrial infrastructure, information technology, science and technology and defence. Our nation is endowed with natural resources, vibrant people and traditional value system. In spite of these resources, a number of our people are below the poverty line, undernourished and lack primary education itself. Our aim is to empower them to be poverty free, healthy and literate. A country needs to have the characteristics as defined in Thirukkural, composed over 2000 years ago:

**‘Pini inmai Selvam Vilaivinbam Emam
Aniyenba Nattirkiv vainthu’**

That is, “ the important elements that constitute a nation are: being disease free; wealth; high productivity; harmonious living and strong defence”. All our efforts should be focused towards building these five elements at various levels in a coherent and in an integrated manner. I am convinced that our nation with a strong, vibrant and billion plus population can contribute to realize these elements.

Today our country is facing challenges such as cross border terrorism, certain internal conflicts and un-employment. To face these challenges, there must be a vision to ensure focused action of one billion citizens of this great country with varied capabilities. What can be that vision? It can be none other than transforming India into a ‘Developed Nation’. Can government alone achieve this Vision? Now we need a movement in the country. This is the time to ignite the minds of the people for this movement. We will work for it. We cannot emerge as a developed nation if we do not learn to transact with speed. I recall the saintly poet Kabir’s wisdom to us:

‘Kal Kare So Aaj Kar , Aaj Kare So Ab’

That means, “What you want to do tomorrow do it today, and what you want to do today do it now”. This vision of developed nation needs to be achieved with Parliamentary democracy, which is the core of our governance system. The basic structure of our Constitution has stood the test of time. I am confident that it will continue to be responsive to the demands of changing situations. The first and foremost task is to respect and uphold the constitutional processes, in the best interest of our people and our nation, without fear or favor and with fairness and firmness. India is a Union of States based on the framework of cooperative federalism. Within the cooperative frame-work, there is also a requirement to develop competitive strengths for the states so that they can excel at the national level and the global level. Competitiveness helps in ensuring and managerial efficiency and to be creative to meet new challenges. These are essential to survive and prosper in a fast changing world of today. In addition, in order to strengthen democratic processes and institution, we all truly strive for substantive decentralization.

I wish to emphasize my unflinching commitment to the principle of secularism, which is the corner stone of our nationhood and which is the key feature of our civilization strength. During the last one year I met a number of spiritual leaders of all religions. They all echoed one message, that is, unity of minds and hearts of our people will happen and we will see the golden age of our country, very soon. I would like to endeavor to work for bringing about unity of minds among the divergent traditions of our country.

Along with speedy development aimed at elimination of poverty and un-employment, national security has to be recognized by every Indian as a national priority. Indeed, making India strong and self reliant – economically, socially and militarily – is our foremost duty to our motherland and to ourselves and to our future generations.

When the child is empowered by the parents, at various phases of growth, the child transforms into a responsible citizen. When the teacher is empowered with knowledge and experience, good young human beings with value systems take shape. When individual or a team is empowered with technology, transformation to higher potential for achievement is

assured. When the leader of any institution empowers his or her people, leaders are born who can change the nation in multiple areas. When the women are empowered, society with stability gets assured. When the political leaders of the nation empower the people through visionary policies, the prosperity of the nation is certain. The medium for transformation to developed India is the empowerment at various levels with power of knowledge. A roadmap for realizing this vision of developed India is in front of us. At this juncture, I recall a beautiful thought of Dr. G.G. Swell, an eminent leader from North East: “We must have a mental infrastructure. Mental infrastructure means sincerity of purpose, of vision, of purity of heart and mind”.

When I travel across our nation, when I hear the sound of waves of the three seas around the shores of my country, when I experience the breeze of wind from the mighty Himalayas, when I see the bio-diversity of North-East and our islands and when I feel the warmth from the western desert, I hear the voice of the youth “When can I sing the song of India?” What can be the answer? I have so far interacted with over 50, 000 school children during the past one year. I would like to share with you my answer to the urge of these children. If youth have to sing the song of India, India should become a developed country which is free from poverty, illiteracy and unemployment and is buoyant with economic prosperity, national security and internal harmony. To create this transformation we all have to resolve ourselves to work and sweat for the national development. I would like to share the song of youth, which I normally recite with the school children, here at this juncture. I am very happy to see the children present here representing the future generation. Through them I would like to convey the song of youth to all children of our country and the people.

As a young citizen of India,
armed with technology, knowledge and love for my nation,
I realize, small aim is a crime.
I will work and sweat for a great vision,
the vision of transforming India into a developed nation,
powered by economic strength with value system.
I am one of the citizens of the billion;
Only the vision will ignite the billion souls.
It has entered into me;
The ignited soul compared to any resource
is the most powerful resource
on the earth, above the earth and under the earth.

From the Prime Minister's Independence Day speech

On 15th August 2001

“Children are the most precious wealth of our nation. Ten years ago, representing India in the World Conference for Children, I had argued for greater investment for all-round development of children. However, the agencies of the Government alone cannot achieve this. I earnestly appeal to all voluntary organizations, businesses, and common citizens to ensure that we together enable every child in India to develop to their fullest potential”.

-Shri Atal Bihari Vajpayee

**“ We aspire to make India a knowledge
superpower by the year 2010 ”**

- Hon' ble Prime Minister Atal Bihari Vajpayee

**Quoted in The Sunday Times of India
January 7, 2001, New Delhi**

Chapter 1

ICCIDD

1.1 The International Council for Control of Iodine Deficiency Disorders

1.1.1 Introduction

The International Council for Control of Iodine Deficiency Disorders (ICCIDD) is the only international organization specifically constituted to promote the elimination of Iodine Deficiency Disorders (IDD). ICCIDD's multidisciplinary global network of experts consists of some 700 specialists from more than 100 countries. They include scientists in the medical and nutrition fields, public health administrators, development managers, technologists, communicators, economists, salt technologists and other industry experts. All of them are committed to assisting governments and international agencies in developing national programs for the virtual elimination of IDD as a public health problem.

ICCIDD was formed in 1986 with support from UNICEF, WHO and the Australian Government in order to bridge the gap between available knowledge and its application in solving the problem of IDD for the millions at risk. ICCIDD has played a major role in communicating the IDD threat to decision makers of national governments and international agencies and to provide variety of health professionals and planners.

By participating in public policy development and advocacy, programme development, implementation and training, ICCIDD consultants assist countries with significant IDD problems to develop national IDD control programmes in cooperation with – national governments, institutions and individuals, private industries, welfare agencies, major international agencies and key bilateral aid giving agencies.

ICCIDD was recognized as the expert group by the UN system in 1987 and further as a Technical Expert Group by the World Health Assembly in 1993. ICCIDD is a non-profit, non-governmental organization (NGO) with official consultant status with WHO and the UN system and official participant in the annual World Health Assembly.

The 5 Cs of ICCIDD

- 1. Commitment**
- 2. Credibility**
- 3. Continuity**
- 4. Collaboration**
- 5. Cohesive**

1.1.2 ICCIDD Mandate

- To promote awareness of the magnitude of IDD and the fact that it can be eliminated at an affordable cost
- To provide technical assistance in the assessment of prevalence in countries and the development of strategies for IDD elimination
- To support training programmes at national and regional levels for survey design, programme management, monitoring and evaluation, social communication and technical assistance to quality assurance systems.
- To encourage research on issues relating to virtual elimination of IDD.

1.1.3 ICCIDD Structure

- The ICCIDD has a Governing Board with more than half of the members from developing countries and the international agencies. The Board meets annually, usually in conjunction with a regional meeting or a special workshop.
- ICCIDD has the Executive Committee of eight members which includes Chairman, Vice-Chairman, Executive Director, Secretary, Treasurer and three other members.

1.1.4 Executive Committee

1. Prof. J. Ling (Chair)
2. Dr. G. N. Burrow (Vice Chair)
3. Dr. J. T. Dunn (Executive Director)
4. Dr. P. L. Jooste (Secretary)
5. Dr. P. Walker (Treasurer)
6. Mr. M. G. Venkatesh Mannar (Member)
7. Ms. J. Mutamba (Member)
8. Dr. S. Sinawat (Member)

Executive Director's position is full-time and that of the others part-time. The Executive Director is responsible for the global secretariat in Virginia, USA with a small and committed staff.

1.1.5 Regional Coordinators

The ICCIDD has Regional Co-coordinators for Africa, Americas, Asia Pacific, China-Far East, and Middle East, South Asia, East Europe / Central Asia, West Central Europe. Each Regional and Sub-Regional Coordinator is the member of the Board who makes annual report on IDD activities in the region and also takes appropriate initiatives including consultancies to individual countries. In Africa, three Sub Regional Co-coordinators are responsible for countries in the north and west (both Anglophone and Francophone) , for Central (Francophone) and East and South (Anglophone) areas. The names of Regional Coordinators are given below:

1.	Africa	Dr. D. Lantum Central Africa and Madagascar Sub-region Dr. J. Egbuta - West Africa Sub-region (Anglophone) Ms. J. Mutamba - South/East Sub-region Dr. T. Ntambwe - West Sub-region (Francophone)
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Sub-region

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Disorders

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Iodine Deficiency

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		1987
		1993
		1995
		1997
		2001
	Delhi	+ Jagriti' from New 2003

The Indian Coalition for Control of Iodine Deficiency Disorders (ICCIDD) got registered under the Societies Registration Act-1860 in May 1997, in New Delhi. The Indian Coalition is a non-profitable, non-governmental organization. The group is committed to sustainable elimination of IDD in India. The legacy of the office bearers of the Coalition dates back to mid-fifties having directly associated with the legendary late Prof. V. Ramalingaswami, first National Research Professor and former Director General of Indian Council of Medical Research and Director of the All India Institute of Medical Sciences, New Delhi who pioneered IDD elimination programmes starting from Kangra Valley (Himachal Pradesh) in the fifties.

1.3 Vision, Mission and Dedication of ICCIDD

Vision: The **vision** of ICCIDD is a world, virtually free from iodine deficiency disorders with national endeavors to maintain optimal iodine nutrition primarily through consumption of iodized salt, which should be made easily available and affordable for all people for all times.

Mission: The **mission** of ICCIDD is to provide a focused advocacy to governments and development agencies, of a continued priority for iodine nutrition, providing technical expertise in a multidisciplinary approach.

Dedication: ICCIDD **dedicates** itself to programs fully supported at the national level for permanent, sustained success and will work with all partners and national entities toward that end.

1.4 Executive Committee

The Executive Committee of ICCIDD consists of seven members. In addition, there are eight members. All these members represent different disciplines and are from different parts of the country.

Executive Committee of Indian Coalition for Control of Iodine Deficiency Disorders)

S. No.	Name and Address	Occupation	Designation (in society)
1	Prof Madhukar Ganesh Karmarkar 14 Gautam ApartmentsNagar , SFS Flats New Delhi – 110 049	Consultant	President
2	Dr Chandrakant S Pandav Room No. 28 Centre for Community Medicine AIIMS, New Delhi 110 029 Tel (O) : 26588522 ® : 26492693	Professor (Community Mediciner	Secretary
3	Dr Narendra Kumar Arora Department of Paediatrics AIIMS, New Delhi 110 029 Tel ® : 26493485	Professor (Paediatrics)	Vice President
4	Ms Saroja Narayanan A-259, Kidwai Nagar New Delhi 110 003 Tel ® : 24628126	Project Officer (Public Health Nurse)	Treasurer
5	Dr Ajay Sood Department of Endocrinology Room No. 304 AIIMS, New Delhi 110 029 Tel ® : 6894240	Physician	Executive Member
6	Dr K Anand Room No. 21 Centre for Community Medicine AIIMS, New Delhi 110 029 Tel : 6884821 Ext. 3553	Associate Professor (CommunityMedicine)	Executive Member
7	Mr. MD Gujarati 573, 1 st Floor, Main Road Chirag Delhi, New Delhi 110 017 Tel : 6858951	Chartered Accountant	Executive Member
8	Dr MM Godbole Department of Endocrinology SGPIMS Rai Bareli Road Lucknow Tel : 0522-440005	Professor Endocrinologist)	Member
9	Dr Shreerang A Godbole 4 Sterling Centre 1 st Floor Opp. Arora Towers, M.G. Road Pune 411 001 Tel : 0212-386739	Endocrinologist	Member
10	Dr Dipty Jain Department of Pediatric Govt. Medical College Nagpur, Maharashtra Tel : 0212-1416570/1060	Paediatrician	Member
11	Dr (Mrs.) Vikas K Desai Prof & Head Department of PSM Govt. Medical College Majuragate Surat 395 001	Professor (Community Medicine)	Member

	Tel : 0261-43485		
12	Dr R Sankar National Programme Officer South Asia Regional Office The Micronutrient Initiative 208, Jorbagh Mew Delhi – 110 003	Physician	Member
13	Dr N Pralhad Rao House No. 2-16-112 Prashanti Nagar Opp. Survey of India Uppal, Hyderabad Tel : 040-674713	Consultant	Member
14	Dr FU Ahmed North-Eastern Indira Gandhi Institute of Medical Sciences Yhankheli Opp. Law College Shillong – 793001, Meghalaya	Director (Community Medicine)	Member
15	Prof. S.K.Kapoor Professor Comprehensive Rural Health Services Project Balabhgarh Haryana	Professor (Community Medicine)	Member

Strengths of ICIDD

- **Legacy of work on IDD since 1950s**
- **Technical Expertise**
- **Interdisciplinary Team**

Chapter II

“As a matter of fact I didn't actually start the Boy Scout Movement, because the blooming thing started itself unseen. It started in 1907 – but the microbe of Scouting had got me long before that.”

Robert Stephenson Smyth Baden-Powell

Scouts and Guides Movement

2.1 A historic Overview

Robert Stephenson Smyth Baden-Powell a British army officer started Scouting as training for his soldiers in 1907 which has today become the largest youth movement in the world. Scouting is a non political, educational movement for young people, open to all who are prepared to accept and live the Scout Promise and Law. It is the largest youth movement in the world with an estimated 25 million members in over 150 countries. The purpose of Scouting is to contribute to the development of young people in achieving their full spiritual, intellectual, physical, social and cultural potential as individuals, as citizens and as members of their local, national and international communities. To a young person Scouting is fun, games, camping, activities, the mountains, the sea, out of doors achievement, badges and being part of a group.

When Powell was a boy he got a lot of fun out of trapping rabbits in woods. In doing this he learned to creep silently, to know the way by landmarks, to note tracks and read their meaning . Somewhere in about 1893, he started teaching Scouting to young soldiers in his regiment. He wanted to make them feel that they were a match for any enemy, able to find their way by the stars or map, accustomed to notice all tracks and signs and to read their meaning, and able to fend for themselves away from regimental cooks and barracks. **In short, he wanted each man to be an efficient, all-round, reliable individual.** The scheme worked. The men loved the training and Scouting became very popular in the regiment. In 1899 he wrote a little book called '*Aids to Scouting*' for soldiers. It taught them observation, or how to track, and it taught them deduction, or how to read the information given by tracks. Later he re-wrote '*Aids to Scouting*', so that it would appeal to boys instead of to soldiers and make them into real men and good citizens.

In 1909, the first big rally was held at the Crystal Palace, London. More than 10,000 boys attended the rally. Baden-Powell was startled to discover that many girls also showed up at the rally, proclaiming themselves as 'Girl Scouts!' He had to think of a name, and soon he remembered that he had been particularly impressed with some "Guides" in India. These men had operated on the North-West Frontier and their main task was to go on very dangerous expeditions. Even when they were off duty, the Guides were still training their

minds and bodies. With this in mind, Lord Baden-Powell decided that "Girl Guides" would be a good name for these pioneering young women.

Historic Events at a Glance

1	Baden Powell started teaching scouting to young soldiers in his regiment	1893
2	Baden Powell wrote the book called "aids to Scouting" for Soldiers	1899
3	Baden Powell started Scouting as training for his soldiers, which has become the largest youth movement in the world today	1907
4	The first Scout Troop in India was formed by a Scottish Missionary in the then Central Province (Presently Madhya Pradesh), which was later disbanded in 1910	1908
5	The first big Rally was held at the Crystal Palace, London in which more than 10000 boys participated.	1909
6	The common confirmed date for start of Scouting in India, when three troops of British Boys were started at Bangalore, Kirkee and Jabalpur.	1909
7	The Girl Guides Association was formed with Agnes Baden Powell as the first President	1910
8	William D. Boyce incorporated the Boy Scouts of America.	1910
9	The Girl Guide Movement started in Jablapur, Madhya Pradesh	1911
10	Started the Girl Scouts in USA with the help of Juliette Magill Kinzie Gordon Low (also known as Daisy)	1912
11	All India Girl Guide Association was formed	1916
12	Montage (Secretary of State for India) and Chelmsford, (Viceroy of India) steps in to induct Indian boys to Scouts	1917
13	Efforts to merge all the Boy Scouts Organisations with help of Lord Baden Powell with partial success	1921
14	Fresh endeavours for merger of all Boy Scouts Organisations	1937
15	Birth of Bharat Scouts and Guides by merger of Boy Scouts Association and Hindustan Scout Association	1950
16	Girl Guides Association merges with Bharat Scouts & Guides	1951

A "Scheme For Girl Guides" was published in the Scout Headquarters Gazette and together with his sister Agnes, Lord Baden-Powell wrote the first Guide Handbook called "How Girls Can Help To Build Up The Empire". In 1910, the Girl Guides Association was formed with Agnes Baden-Powell as the first President.

Baden-Powell and Agnes had become friends with a woman from the United States, Juliette Magill Kinzie Gordon Low also known as Daisy, in 1910. Juliette Low was extremely interested in the idea of a scouting organization for girls. She began a troop of Girl Guides in Scotland, which was a huge success, and later formed other troops in London. On March 12, 1912 she realized her dream of returning to the United States and organizing "Girl Scouts." Thus Juliette Magill Kinzie Gordon Low became the founder of girl scouting in the USA.

The Unknown Scout and a Good Turn

In 1909, the year of the first big rally, a Chicago businessman and publisher, William D. Boyce was lost in a thick London fog. A boy suddenly appeared and offered to lead him to his destination. When they arrived, Boyce tried to "tip" the boy for his trouble. The boy kindly refused and explained that he was a Scout and could take no money for a Good Turn. Boyce was intrigued and questioned the boy about Scouting. The boy led him to Baden-Powell's office, and then disappeared into the fog.

After speaking with Baden-Powell, Boyce was determined to begin an organization for boys in the United States of America. On February 8, 1910, Boyce incorporated the Boy Scouts of America. No one was able to discover the name of the Boy Scout whose Good Turn led scouting to the United States. A statue of a buffalo was erected in honor of the "Unknown Scout" at the Scout Trading Center at Gilwel Park, England. Thus the ideals, methods, instruction, goodwill, and spirit of Scouting came to Boy Scouts of America (BSA) by way of William D. Boyce.

2.2 The Purpose, Principles and Methods of Scouting

2.2.1 The Purpose:

The purpose of the movement is to contribute to the development of young people in achieving their full physical, intellectual, social and spiritual potentials as individuals, as responsible citizens and as a member of the local, national and international communities.

2.2.2 The Principles:

The Scout / Guide Movement is based on the following principles:

A. Duty to God:

- Adherence to spiritual principles, loyalty to the religion that expresses them and acceptance of the duties resulting therefrom.

B .Duty to others:

- Loyalty to one's country in harmony with the promotion of local, national and international peace, understanding and cooperation

- Participation in the development of society with recognition and respect for the dignity of one's fellowmen and for the integrity of the natural world.

C .Duty to self:

- Responsibility for the development of oneself.

2.2.3 The Method:

The Scout/ Guide method is a system of progressive self-education through:

1. Promise and Law

a. The Promise:

The Promise for the Scout/ Guide: “On my honour, I promise that I will do my best To do my duty to God* and my country to help other people and to obey the Scout/ Guide Law”

**Word Dharma may be substituted for the word God, if so desired.*

b. The Law :

The Law for the Scout/ Guide:

- (i) A Scout/ Guide is trustworthy.
- (ii) A Scout/ Guide is loyal
- (iii) A Scout/ Guide is a friend to all and a brother / sister to every other Scout/ Guide.
- (iv) A Scout/ Guide is courteous.
- (v) A Scout/ Guide is a friend to animals and loves nature.
- (vi) A Scout/ Guide is disciplined and helps protect public property.
- (vii) A Scout/ Guide is courageous.
- (viii) A Scout/ Guide is thrifty.
- (ix) A Scout/ Guide is pure in thought, word and deed.

2. Learning by Doing:

Membership of small groups under adult leadership involving progressive discovery and acceptance of responsibility and training towards self government directed towards the development of character and acquisition of competence, self-reliance, dependability and capacities both to cooperate and to lead.

Progressive and stimulating programs of various activities based on the interest of the participants including games, useful skills and services to the community taking place largely in an outdoor setting in contact with nature. So it is fun with purpose and challenge and opportunity to improve understanding between generations and getting valuable experience.

2.3. Bharat Scouts and Guides (BSG) -An Introduction

2.3.1 A Historic Overview

The Indian wing of the Scouts and Guides is known as Bharat Scouts and Guides (BSG). It is the largest voluntary, non-political, educational movement in the country open to all without distinction of origin, race or creed in accordance with the purpose, principles and methods conceived by the founder Lord Robert Smyth Stevenson Baden Powell in 1907. Scouting and Guiding in India mirrors firm determination, commitment to ideals, educated service and word brotherhood. .

The first Scout Troop in India, consisting entirely of Indian boys, was formed by a Scottish missionary, in the then Central Province (Presently Madhya Pradesh) in 1908. However, the Troop was disbanded in 1910. The list of three Scout Troops increased to nine different Boy Scout Organizations in early 1911 in Shimla, Calcutta, Jabalpur, Allahabad, Bangalore, Poona, Kirkee, Saidpur and Madras (present Chennai). Efforts to induct Indian boys to Scouts did not materialize till Montague and Chelmsford appeared on the scene as Secretary of the State for India and Viceroy of India respectively in 1917. (The common confirmed date, however, for the start of Scouting in India is 1909, when three troops for British Boys were started at Bangalore, Kirkee and Jabalpur.)

The Girl Guide movement got a start in India in Jabalpur (M.P.) .In 1911 it expanded enormously. There were about 50 Girl Guide companies with a membership of over 1200 by 1915. Their companies were directly registered with Imperial Scout headquarters, London, like other Scout Organizations. But an All India Girl Guides Association was formed in 1916.

2.3.2 Unification of Scouting and Guiding

Efforts were made to merge all the Boy Scouts Organization with the help and assistance of Lord Baden Powell in 1921. These efforts were partly successful. An endeavor was again made in 1937.

There were scattered organisations during the pre-independence era. However, serious efforts made by leaders like Pt. Jawahar Lal Nehru, first Prime Minister of India, Maulana Abul Kalam Azad, the then Education Minister, Govt. of India, Mr. Mangal Das Pakwasa, the then Governor of Central Provinces and Scout Leaders like Dr. H. N. Kunzru, Pt. Sri Ram Bajpai, Justice Vivian Bose. Final merger of Boy Scouts Association and Hindustan Scout Association took place on 7th November 1950 under the name of the Bharat Scouts & Guides. Thus came into being the Bharat Scouts and Guides. It is a society registered under the Society Registration Act XXI of 1860. The Girl Guides Association joined the Bharat Scouts and Guides a year later on 15th August 1951.

2.3.3 Growth of Bharat Scouts & Guides Movement

The number of Scouts and Guides has increased consistently since its inception. The table- 1 depicts the significant growth in the number of Scouts during the pre-independence period. This is evident by the slope of the line graph depicted in Fig 1.

Year wise increase in the number of Scouts of BSG in the early days

S. No.	Year	No. of Scouts
1.	1912	502
2.	1915	2,277
3.	1922	15,202
4.	1926	80,887
5.	1930	1,55,159
6.	1935	2,72,853

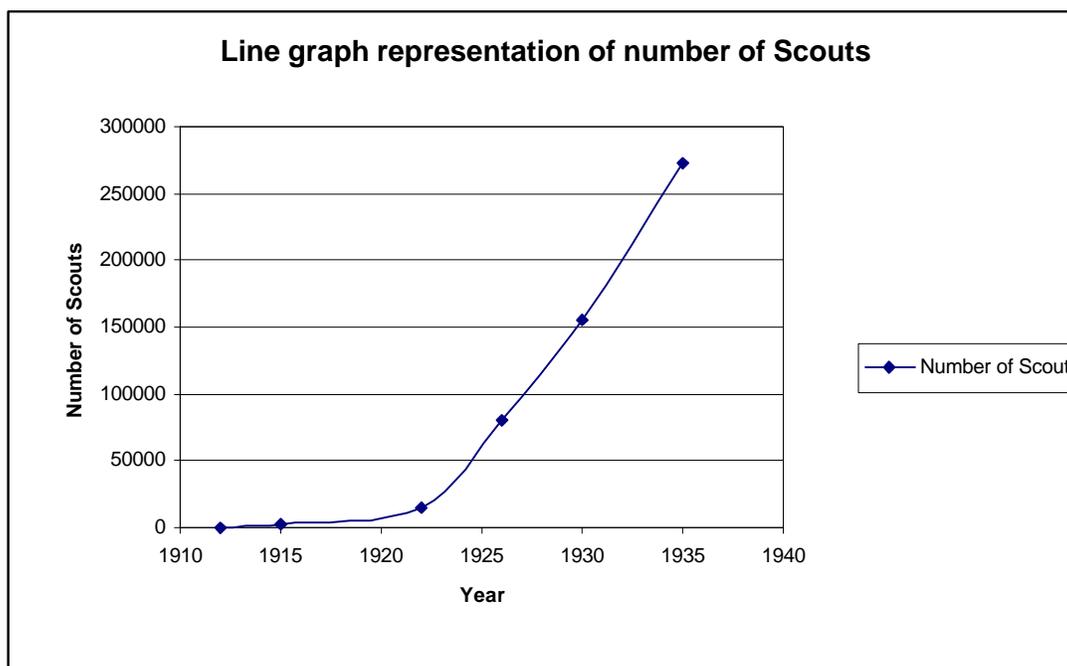


Figure 1 - Year wise growth of Scouts during early days of its inception

The number of members of Bharat Scouts and Guides kept on increasing after the establishment of Girl Guides. The enormous increase after 1950 is shown in following table. The Fig 2. is a line graph depiction of the same data. The growth of census has been as follows:

Year wise increase in the number of the Scouts and Guides of BSG

S. No.	Year	No. of Scouts (million)	No. of Guides (million)	Total (Million)
1.	1950	0.337	0.056	0.393
2.	1971	0.427	0.148	0.575
3.	1979	0.585	0.225	0.810
4.	1990	0.1.362	0.681	0.681
5.	1995	1.425	0.700	2.125
6.	1998	1.963	0.965	2.928
7.	2003	2.394	1.255	3.649

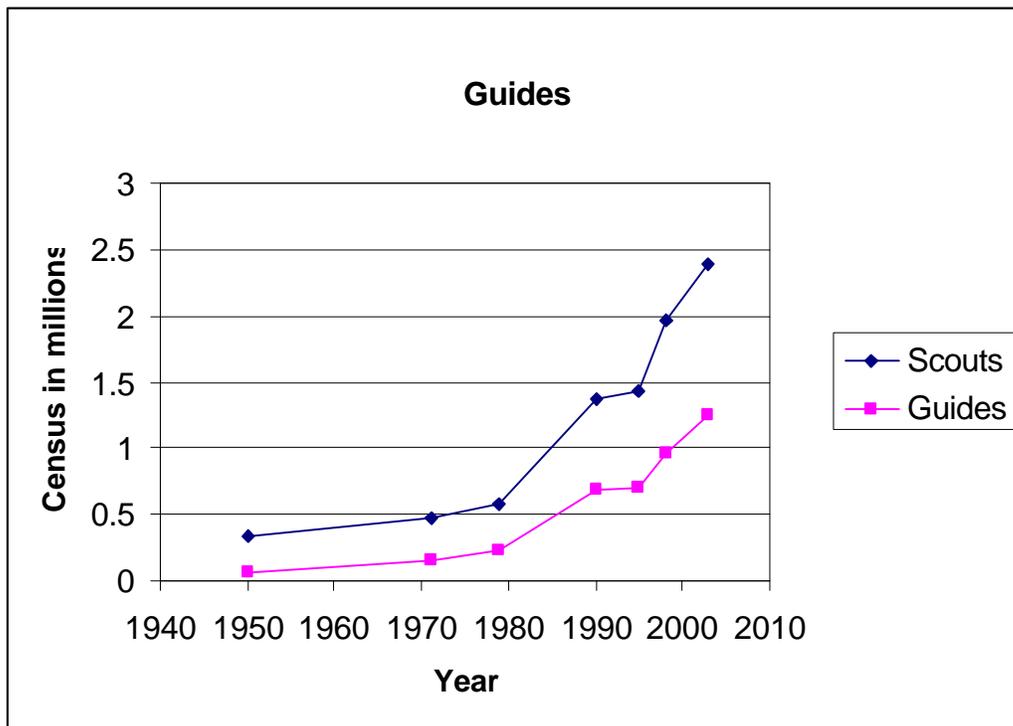


Fig 2. Line Graph of census of BSG members

The number of Scouts as well as Guides has increased enormously over the years. The network of BSG has spread to several states. The census of BSG scouts and Guides for the year 2002-2003 is given in the Annexure 1.

2.3.4 BSG Organization at a Glance

The Bharat Scouts & Guides (BSG) is a hierarchy starting from the patrols, troops, companies, groups forming into Local, District, State Associations and goes up to the National Organization. The outline of the organizational structure is given below-

Organisational Structure of National Association of BSG

Dr. Hridya Nath Kunzru became the first National Commissioner of BSG in 1952. The name of the subsequent commissioners is summarized below:

2.3.5 National Commissioners of the BSG since its inception

No.	Name	Period	
		From	To
1.	Dr. Hridya Nath Kunzru	1952	1957
2.	Justice Vivian Bose	Nov. 57	Nov. 59
3.	Prof. Madan Mohan	Nov. 59	Nov. 60)
4.	Dr. Hriday Nath Kunzru	Nov. 60	Nov.64
5.	Mrs. Lakshmi Mazumdar	Nov. 64	Apr. 83
6.	Sardar Lakshman Singh	Apr. 83	Nov. 92
7.	Mr. V.P. Deenadayalu Naidu	Nov. 92	Nov. 95
8.	Mr. L.M. Jain	Nov. 95 onwards	

Decorations and Awards

The National Association of BSG has sanctioned and authorized various kinds of decorations and awards at national and state level like Silver Elephant, Silver Star, Bar to Silver Star and Award for Gallantry at National Level and Medal of Merit, Bar to Medal of Merit, Long Service Decoration, Thanks Badge etc. at State Level.

2.3.7 Proposed Rajya Puraskar Award and Proficiency Badge onn IDDE Programme

During the interactions of the ICCIDD team at Pachmarhi, Madhya Pradesh, in one of the training programmes, Mr. K. Sukumara, Joint Director of Bharat Scouts and Guides suggested the worthwhileness to introducing the “Rajya Puraskar Award”. This is the second-most important medal, coming only after the top-most President’s Award. Accordingly, a syllabus has been prepared and is under discussion with the Bharat Scouts and Guides officials. The draft version of the qualitative requirements and syllabus are given below:

Qualitative Requirements for Proficiency Badge:

1. Pass the test(s) in accordance with Bharat Scouts and Guides norms
2. Iodine Deficiency Disorder Elimination(IDDE) Programme related:
 - 2.1 Become proficient with the Frequently Asked Questions (FAQ) at retail shop and household level
 - 2.2 Conduct field activities
 - 2.3 Salt sample collection from Households
 - 2.4 Salt sample collection from Retail Shops
 - 2.5 Observe and prepare a report of storage and package of iodized salt retail level and household level
 - 2.6 Compile a report in accordance with the Household/ Retail shop Questionnaire
3. Submit a project (using salt testing kit and/or analyse using titration method in the school)
4. Information dissemination, e.g. in school assembly, Scouts & Guides event etc
5. Taking an oath to promote Elimination of Iodine Deficiency Disorders
6. Attend at least one to two training programme in IDDE
7. Spreading message by word of mouth (W.O.M.)

❖ Desirable:

1. Visit a salt production & iodization plant and make a report
2. Participation in a competition e.g. slogan writing, essay writing, limericks, elocution, poster making etc.
3. Observe two cases of Iodine Deficiency in any form e.g. goitre, cretins, psychomotor incoordination. Make a record of observations

Chapter III

Iodine Deficiency and Iodised Salt : Some Basic Facts

What every family and community has a right to know about Iodine Deficiency Disorders (IDD)

Regular & adequate Iodine supplementation to pregnant mothers & children is the best way to ensure optimum physical & mental development of the fetus & the newborn child

3.1. Iodine: Iodine is an element, essential for the normal growth and development in animals and human being. It is one of the halogens with a relatively high atomic weight of 127. It occurs in the human body only in small amounts (15 – 20 mg). The requirement of iodine is only 100 – 150µg per day (0.1 – 0.15 mg). Because of which iodine is referred to as a trace element. Iodine is an important constituent of thyroid hormones.

3.1.1 Functions: The thyroid hormones are essential for the various metabolic activities in the body. Normal thyroid gland function is essential for normal growth and development of almost all organ systems more specifically for organ growth and development.

3.1.2 Sources of Iodine: Iodine occurs in nature, predominantly in oceans and soil. Iodine was originally present in soil abundantly. However, a large amount of iodine was leached from the surface of the soil by, glaciations, snow, rain, floods, and winds,. Thus the soil gradually became iodine deficient. Crops grown in these soils will also be iodine deficient, thus resulting in animals and plants, being not a good source of adequate iodine. The iodine concentration in sea water is about 50 – 60 µg/ L. As sea water contains good amount of iodine, sea weeds and sea fish/animals are a good source of iodine, but again these are consumed only by selected communities or segments of population.

3.1.4 Requirement of Iodine: The thyroid gland needs to trap from circulation about 60µg of iodine per day. To ensure this amount of iodine, one must consume about 100 – 150 µg of iodine per day. It is essential that iodine is taken in this small amount every day. It cannot be consumed at one time.

Implications of Loss of I.Q.

- 1. Poor Scholastic performance**
- 2. Frequent failures / grade repetitions**
- 3. Absenteeism / Drop outs**
- 4. Major implications: Education for All**
- 5. Consequent economic & social effects**
- 6. Drain on Human Resource Development**

The average daily requirement of an adult is 150 micrograms and that of pregnant and lactating women is increased to 200 micrograms as the basal metabolism increases. The age specific requirement for children is as follows:

Iodine: An Essential Micronutrient

- **Iodine is a trace element**
- **All vertebrates extract iodine, concentrate it and secrete it in hormonal form**
- **Iodine is an essential component of the thyroid hormones**
- **It is present in body in minute amounts (15-20 mg)**
- **Thyroid hormones:**
 - **Needed for regulation of body metabolism**
 - **Needed for optimal mental & physical development**

Unborn Child – The most Vulnerable

- **90 % of the growth & development of the human brain takes place between 3rd month of pregnancy to 3rd year of life**
- **This makes it vital that all expecting mothers get their daily iodine requirement**

Requirements of Iodine

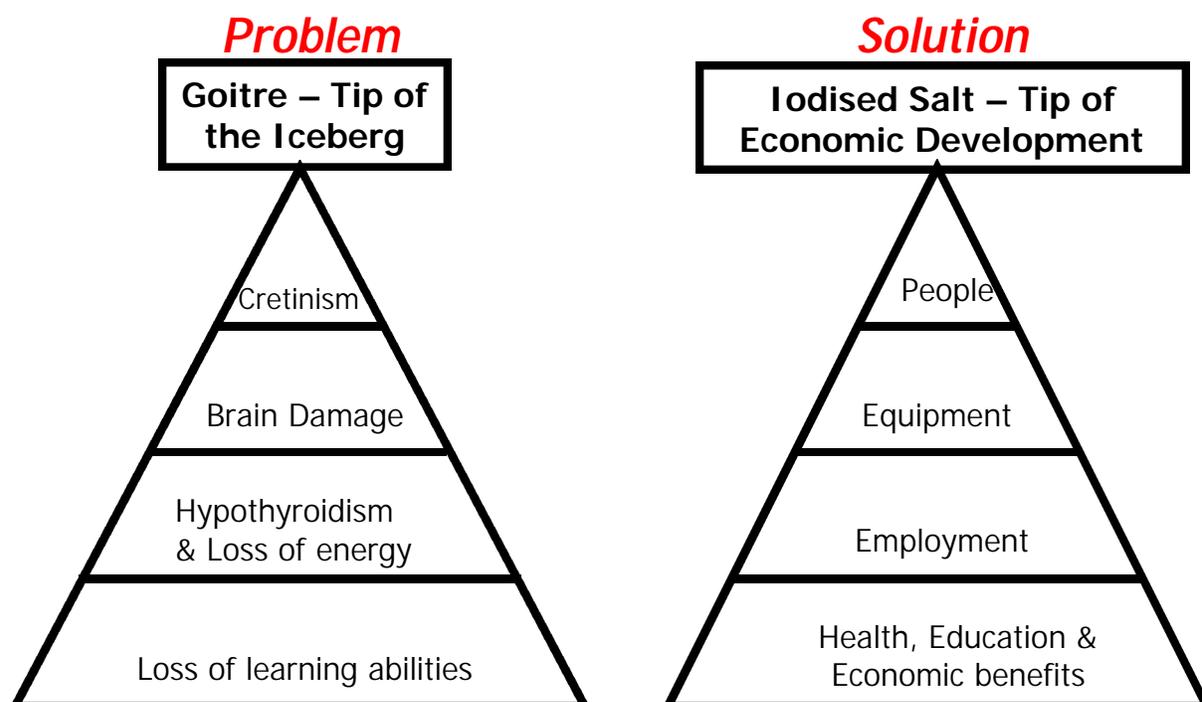
The causes for iodine deficiency in humans should be considered in light of the iodine requirements in human beings. The ideal iodine intake as recommended by WHO/UNICEF/ICCIDD is shown in the following table.

Recommended daily Iodine intake in human beings (WHO/UNICEF/ICCIDD)

S. No.	Age Group	Iodine Requirement (in μg)
1.	Infants (0-11 months)	50
2.	Children (12 months to 59 months)	90
3.	School age children (6-12 years)	120
4.	Adults (Above 12 years)	150
5.	Pregnant and lactating women	200

3.1.4 Cause of Iodine Deficiency: Prolonged consumption of food which is deficient in iodine results in iodine deficiency. All foods grown in iodine deficient soil are a poor source of iodine. Iodine deficiency can also be caused if some chemicals interfere with the 'trapping of iodine' by the thyroid, which is relatively a rare cause for iodine deficiency.

IDD & Iodised Salt – Common Issues



3.1.5 Ill-effects of iodine deficiency

3.1.5.1 Iodine Deficiency Disorders (IDD) and Learning skills: Iodine deficiency causes a spectrum of disorders – goiter, cretinism, psycho-motor incoordination, stunting, speech and learning defects, abortions and still births. However, of concern is the impaired development of the brain and central nervous system in early fetal life in humans. These changes are irreversible and hamper learning abilities, leading to loss of 13 IQ points in the population living in iodine deficient areas. Further, iodine deficiency, when present in mild to moderate proportions, may not show any visible changes in the size of the thyroid gland but still has effects on the brain and central nervous system development in early life. Iodine Deficiency Disorders (IDD) can affect people of all age groups. The physiological consequences depend on the age at which the deficiency occurs.

3.1.5.2 Fetal: Fetal brain growth is very sensitive to thyroid hormones. Iodine deficiency at this age prevents the brain from full development. This results in a wide range of defects from mental deficiency, defects of speech and hearing-extreme form being deaf-mutism, difficulty in walking and muscular co-ordination and squint to varying degrees. These defects are irreversible. These defects form spectrum of ‘Cretinism’.

3.1.5.3 Infancy and Childhood: Iodine deficiency affects the developing brain and can have various consequences like: Mental retardation, speech defects, hearing defects, squint, delayed motor development, growth failure, lack of energy and muscular incoordination.

3.1.5.4 Adolescents and Adults: When there is iodine deficiency, the iodine available in the blood is not enough for the thyroid gland. As a result, in an effort to trap more iodine the thyroid gland enlarges. This is a compensatory effort, on the part of the

thyroid gland, which continues to occur till the deficiency lasts, resulting in goitre. Goitre is the most common and easily recognizable consequences of iodine deficiency. However, even in the absence of such recognizable signs, a person can be iodine deficient. This sub-clinical iodine deficiency has a serious consequence in terms of education and physical performance. Deficiency of iodine in adolescence causes impaired mental function, Retarded physical development Deficiency of iodine in adults causes, Goiter with its complications, Hypothyroidism, Impaired mental function. Thus, adolescents and adults with iodine deficiency lack energy, tire easily and are less productive.

3.1.5.5 Pregnancy: Iodine deficiency in pregnancy leads to spontaneous abortions, still births and infant deaths, interference with the brain development of the fetus, birth of iodine-deficient babies, who may be cretins. The Spectrum of iodine deficiency disorders is summarized in the table below:

Spectrum of Iodine Deficiency Disorders

Stage in Life	Health Effects
Fetus	Increased infant mortality Neurological cretinism: <ul style="list-style-type: none"> • Mental deficiency • Deaf-mutism • Spastic diplegia • Squint Myxedematous cretinism <ul style="list-style-type: none"> • Mental deficiency • Dwarfism Psychomotor defects
Neonate	Neonatal goiter Neonatal hypothyroidism
Infant and Child	Goitre <ul style="list-style-type: none"> • Juvenile hypothyroidism Mental retardation • Speech defects • Hearing defects • Squint • Delayed motor development • Growth failure or stunting • Lack of energy • Muscular incoordination
Adolescent and Adult	Impaired mental function Retarded physical development Goitre with its complications Hypothyroidism Impaired mental function
Pregnancy	Abortions Still births Congenital abnormalities Increased perinatal mortality

Effects of Iodine Deficiency in Humans



Goitre (Enlarged Thyroid Gland)

Severe Physical & Mental Handicap

1. Treatment: Only early stages of goitre can be reversed by iodine supplementation. In general, IDD's cannot be treated. However they all can be prevented. Large goiters are corrected by surgery.

2. Methods of prevention of IDD: Prevention of iodine deficiency disorders is by three methods. They are:

(i) **Dietary Modification:** The term dietary modification means changing the diet of the population so that they consume nutrient rich foods. However, this approach is not applicable for iodine deficiency because all the foodstuffs grown in iodine deficient soil will be deficient in iodine content.

(ii) **Supplementation of the nutrient:** This means provision of the nutrient as a tablet or injection. As the requirement of iodine is very small, daily supplementation is difficult. However iodized oil given orally or as injection is used for control of IDD. Due to its cost and problems in implementation, its use is currently limited to severely deficient areas.

(iii) **Fortification:** Adding the nutrient to foodstuff like salt, wheat flour (*atta*), milk, bread etc is called fortification. Foodstuffs, which are regularly consumed by all sections of the community, are used for fortification. Salt is used as the vehicle for iodine fortification as all the sections of the community use it. Adding iodine to the salt does not change the color or taste of the salt.

The Government of India recognized the need to control iodine deficiency disorders and started the National Goitre Control Programme in 1962. The method of control chosen was supply of iodized salt. This was based on the successful experiment in the Kangra valley in Himachal Pradesh, where regular use of iodized salt reduced the goitre by almost half in a time of five years.

3. Iodisation of salt: The amount of iodine to be added depends upon the iodine requirement of the body and average per capita consumption. It has been estimated that on an average, an individual consumes 10 gms of salt. Thus to provide 150µg of iodine in 10 gms of salt, the iodine which needs to be added is 15 parts per million (ppm) or 15 mg of iodine per kilogram of salt. However, iodine is lost from salt if it is exposed to moisture, heat and sunlight. Therefore for the salt to retain the iodine at 15 ppm, it will need to contain more at the production stage. In India, it is recommended that salt should contain not less than 30 ppm iodine at production site. However, efforts should be made at all levels to take adequate steps for preventing iodine loss.

3.1 Testing the salt for iodine content: The quality control of salt iodisation through testing is critical to the overall success of any Iodine Deficiency Disorders (IDD) elimination programme.

3.2 Methods of measuring iodine in salt: Two techniques are used in the measuring the levels of iodine in salt:

(i) **Standard Titration Method** – This is conducted in laboratories. Salt is treated with concentrated sulphuric acid, which liberates iodine. The free iodine is titrated with sodium thiosulphate, using starch as indicator. The titration result provides an **accurate quantitative estimate** of the iodine level in the salt. This method is preferred for accurate checking of salt batches produced in factories and, in cases of doubt, or for resolving disputes.

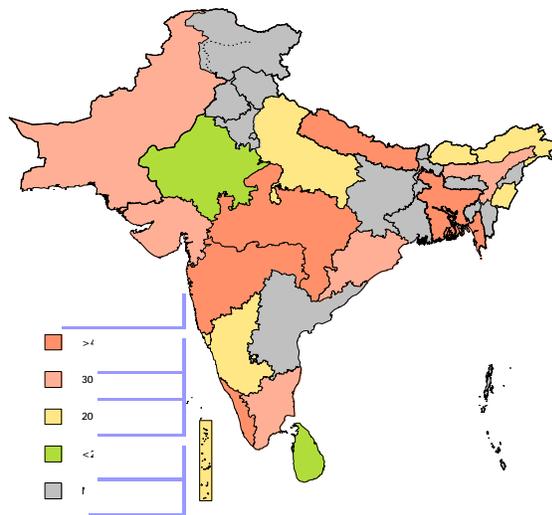
(ii) **Salt Test-Kits** – The kit consist of bottles of starch solution (stabilized) of which one drop is placed on the salt. The intensity of the blue colour that develops indicates the **approximate iodine level**. Rapid salt testing kits are available commercially. The salt testing kits are simple, rapid and easy to apply. Salt testing kits can be used at production, distribution, retail and household level. However they give information only on the **presence or absence** of iodine. The salt testing kits can also be used for the education of the community.

4. Steps taken for the prevention of iodine loss:

- 5.1 Do pack salt in High Density Polythene (HDPE) bags
- 5.2 Do Not expose salt to sunlight
- 5.3 Do Not store salt in humid places

- 5.4 Do keep the salt in closed, airtight containers at home
- 5.5 Do Not sell/ buy loose or unpacked salt
- 5.6 Do Not wash salt before use (common practice with big crystal salt in many parts of India)

Iodine deficiency in India



No state or Union Territory is free from IDD as a public health problem

3.2 What every family and community has a right to know about Iodine Deficiency Disorders (IDD)

3.2.1 Note to Communicators

Iodine is essential for normal physical and mental growth. If the soil and water are deficient in iodine, then crops growth on such soil lacks in iodine consumption of such foods leads to iodine deficiency.

Lack of iodine in the body causes a spectrum of disorders: goiter, mental handicap, defects of speech and hearing, difficulty in co-ordination of movements, walking defects, stunted growth and hypothyroidism. It also causes abortions and still-births. Collectively, these are called Iodine Deficiency Disorders (IDD). More importantly, if there is a lack of iodine during pregnancy, a newborn's brain and body can become permanently retarded and stunted. It is now known that IDD is the most important preventable cause of mental deficiency in the world.

Salt is the ideal and most effective vehicle for supply of iodine to the population. Salt is one food commodity which is consumed in fixed quantity everyday, by all - young or old, men & women, rich or poor, city dwellers or rural population. Farm animals should also be given iodised salt. This will make them grow better, improve their fertility and increase their yield of meat, milk, eggs or wool.

3.2.2 Supporting Information

Children, in areas where there is not enough iodine in the soil, water and food, can develop mental and physical handicaps. Pregnant women who do not consume adequate amounts of iodine are at higher risk of abortions and stillbirths.

1. Iodine deficiency is a world-wide problem. IDD has been reported as a public health problem in **130 countries** of the world. The "at risk" population to IDD in these countries is 38%.
2. One out of ten person on an average, in the world has goitre.
3. Pregnant women who are deficient in iodine are at a higher risk of frequent abortions and stillbirths.
4. Iodine is required for normal growth and development of the brain. By the age of three years, 90% of the growth and development of the human brain is almost complete. Iodine deficiency during pregnancy and just after birth may result in irreversible damage to the child's brain. In its most severe form, this condition results in cretinism (mental and physical handicaps). This can be totally prevented, if the pregnant mother consumes iodised salt every day.
5. The cretin child may have a range of disorders: mental handicap, defects of speech and hearing, difficulty in co-ordination of movements, walking defects, stunted growth and

hypothyroidism. These children remain dependent on their mothers and families even when they grow up.

6. Goitre is the most common and visible manifestation of iodine deficiency. Goitre in its early stages can be cured by using iodised salt. Once the goitre becomes too big, it is irreversible. The only way it can be removed is undergoing surgical operation. Children living in iodine deficient areas are less intelligent compared to children living in areas where there is sufficient iodine in the soil, water and food.

7. It has been shown that children living in iodine deficient areas, on an average, have **13 I.Q. points less** than those living in iodine sufficient areas.

8. These may look `normal', but due to low intelligence their performance in school is poor. They repeat their grades often and subsequently leave the school. All this causes great burden on our resources required for education and health. Daily use of iodised salt prevents all Iodine Deficiency Disorders. Always eat and cook with iodised salt. It is safe and effective.

9. Iodised salt is the most widely practiced and accepted method of getting iodine into the diet. It is simple, physiological effective, safe and economical.

10. Daily use of iodized salt prevents all disorders due to iodine deficiency.

11. It is absolutely safe to use iodised salt for the entire family. There are no adverse effects from consuming iodised salt. Any extra quantity of iodine consumed is excreted through urine.

12. Farm animals should also be given iodised salt. This will make them grow better, improve their fertility and increase their yield of meat, milk, eggs or wool.

13. Like human beings, animals are also affected by the disorders caused by iodine deficiency. Reproductive failure is the most common manifestation of iodine deficiency in farm animals.

14. The lack of iodine in the diet of farm animals reduces the yield of meat, milk, eggs and wool.

15. These disorders are preventable by giving iodised salt to farm animals. Iodised salt also increases the yield of meat, milk, eggs and wool.

Chapter IV

20 Questions on IDD

Shri Mohan Dharia released the “20 Questions on IDD” in Hindi at the ‘Training Program of Teachers (Scout Masters and Guide Captains)’, on the 7th October, 2003, New Delhi. The Hindi and English versions of the “20 Questions on IDD” are given below.

(To be attached from the Agency’s Computer at the next draft)

Chapter V

Some Basic Facts about salt and Iodization of Salt

5.1 Genesis of word Salt : Latin- Sal- Salarium –Salary

The word salt is derived from Latin word 'sal' or 'salarium' meaning salary. In Roman society, salt was used as currency, and soldiers were paid in salt. Based on this, we have the familiar phrase that a person is "worth their salt", meaning worth the wages they receive. The mineral name for salt is sodium chloride, which was formally known as halite. Word halite is derived from the Greek word *hals* meaning salt. The mineral name of 'sodium chloride' was given by E.F. Glocker in 1847.

5.2 Background

Salt, composed of sodium chloride (NaCl), is one of the necessities of life for man and animals. Salt that is mined from solid layers in the ground is called rock salt. When produced along with other, usually powdery, salt-like compounds by evaporation from seawater, it is called sea salt or solar salt. Brine is the term for salty water from which salt can be produced. In chemical usage, salt may refer to any compound of a metal and non-metal. Sodium chloride is sometimes referred to as "common salt" or "table salt", to distinguish it from other salts.

5.3 Sources

Salt is produced in most of the countries on Earth. After the United States of America, the largest producers of salt are China, Germany, India, and Canada. In most other countries having a seacoast, salt for local use is produced by evaporation of seawater.

5.4 Uses

Salt is used in human and animal diet, food seasoning and food preservation; used to prepare sodium hydroxide, soda ash, caustic soda, hydrochloric acid, chlorine, metallic sodium; used in ceramic glazes; metallurgy; curing of hides; mineral waters; soap manufacture; home water softeners; highway de-icing; photography; herbicide; fire extinguishing; nuclear reactors; mouthwash; medicine (heat exhaustion); in scientific equipment for optical parts. Single crystals used for spectroscopy, ultraviolet and infrared transmission.

5.5 Salt Production Methods and Practices

The production of common salt is one of the most ancient and widely distributed industries in the world. Salt is produced by mining of solid rock deposits and by the evaporation of sea water, lake, playa (desert basin) and underground brines. Rock and solar salt account for roughly 50% of production each. The requirements of Europe and North America are met mostly by mining. In Asia, Africa, Australia and South America, solar evaporation is the main source.

5.6 Iodised Salt

Iodised salt is nothing but ordinary common salt in which a very minute quantity of an iodine compound is thoroughly mixed. Iodised salt looks, smells and tastes exactly like common salt and can be used like ordinary salt. Iodised salt is available in different varieties viz. crystal, crushed and powdered varieties in loose and packed form and refined variety in packed form.

Since iodine is a constituent of sea water, it is often incorrectly assumed that sea salt contains sufficient iodine for nutritional purposes. The total dissolved salts in seawater contain less than 2 micrograms of iodine per gram of salts, equivalent theoretically to about 3 micrograms of iodine for every gram of recovered sodium chloride (3 parts per million). Even this small quantity of iodine is mostly lost in the residual mother liquor that is drained out during the production process and should be disregarded in calculations to establish the level of iodine supplement.

5.7 Iodine and potassium iodate

In India the iodizing chemical chosen is potassium iodate, owing to its high stability in tropical weather conditions and quality of raw salt. It is added to salt at 50 parts per million (ppm) level (equivalent to 30 ppm of iodine). Taking into consideration the transportation and storage losses, the iodised salt at the retail level is expected to contain a minimum of 25 ppm of potassium iodate or 15 ppm of iodine.

The basic raw material, iodine, required for the manufacture of iodizing chemical potassium iodate, is imported as there is no known source in the country. There are 19 potassium iodate manufacturing units in India and enough capacity has been created to meet the present as well as future need. The requirement of iodine to iodise the entire edible salt in the country is 160 tones per annum. The foreign exchange involved in the import of iodine with the present Cost, Insurance and Freight (C.I.F.) price of US \$ 17 per kg is about Rs. 118 million.

5.8 Iodisation Process

Salt iodisation is a simple process and does not require sophisticated technology. It involves uniform mixing of potassium iodate with common salt and it is achieved by several methods, viz. Spray mixing, submersion, drip feed, dry mixing etc. The commonly adopted methods are spray mixing and drip feeding.

5.8.1. The Spray mixing process involves spraying of 3-4 % aqueous solution of potassium iodate in common salt and mixing it thoroughly in a screw conveyor cum mixer. The plant design has been standardised and is fabricated indigenously. Various capacities of the continuous plants ranging from 2 to 8 tones per hour of both mobile and fixed type are available. Depending on the materials of construction, the price ranges from Rs. 100,000 to 125,000.

5.8.2. Submersion process developed by the Central Salt & Marine Chemical Research Institute, Bhavnagar (Gujarat) consists of three brick masonry tanks. Common salt to be iodised is spread to a thickness of 9 to 12 inches in the submersion tank and saturated brine with calculated quantity of potassium iodate is let into it. After allowing a contact time of 10 to 15 minutes, the solution is discharged and the salt coated with potassium iodate solution is spread to dry. A five ton per day plant costs about Rs. 270,000.

5.8.3. The Drip feed process is ideally suited for undertaking the twin operations of powdering and iodisation simultaneously. The process consists of allowing potassium iodate solution to fall in drops on the salt when it is fed into grinder. Entrepreneurs adopt this process for marketing iodised salt in consumer packs. The cost of the plant is about Rs. 35,000. It has a capacity of 2000-3500 tons per annum.

5.8.4. The Dry mixing process, the equipment used is same as that of Batch type spray process plant and instead of adding potassium iodate in solution form a pre-mix containing potassium iodate and anti-caking agent is mixed with common salt.

Refined iodised salt is produced in refineries where common salt is upgraded by removing salts other than sodium chloride, viz. calcium, magnesium etc. Moisture content is kept as low as less than 1 % with the help of a drier. In order to impart free flowing characteristic to the refined salt, additives and crystal modifier such as aluminium silicate, magnesium carbonate, potassium ferro cyanide etc. are added to permitted extent. The cost of a 3 tons per hour plant is about Rs. 4.5 million.

5.9 Quality

Iodised salt being a food item, its quality specification is covered under the provision of the Prevention of Food Adulteration Act, 1954 and the rules made there under. In addition to characteristics like sodium chloride, matter insoluble and soluble in water, the iodine content at manufacture and distribution channel including retail level are specified as 30 and 15 parts per million (ppm) respectively.

Though Salt Department, through its network of laboratories established at the salt producing areas, undertakes test check of quality of the iodised salt produced, the responsibility of ensuring the quality of iodised salt squarely lies with iodised salt producers. For this purpose, Salt Department insists for establishment of a laboratory at the production site. A spot test kit, which indicates the presence of iodine over a range is also available. A drop of test solution added to iodised salt turns it blue and the intensity of the colour is compared with a standard colour.

5.10 Assistance available for establishing iodisation units in India

Salt iodisation units established with the specific permission of the Salt Department are eligible for the following assistance:

- Salt Department provides free technical guidance in selection of machinery for setting up of iodisation plant, training of personnel in operation and maintenance of plant.
- Samples of iodised salt, potassium iodate, common salt etc. are tested in the Salt Department laboratories free of cost for guidance and quality improvement.
- Free training courses are conducted by the Salt Department for the benefit of laboratory personnel on the quality assurance.
- Salt co-operative societies and small salt producers associations were provided with 40 spray type salt iodisation plant along with one year requirement of potassium iodate free of cost.

- Transport of iodised salt by rail from production to consuming centres has been accorded higher “B” priority, to facilitate quicker movement. Further, Railways provide covered wagons during monsoon.

5.11 Requirement of Iodised Salt

The daily salt consumption as per the multi-centric study conducted by the Indian Council of Medical Research averages 13.8 grams. Accordingly, the annual per capita consumption works out to 5.037 kg. Based on the population, the requirement of salt for human consumption is estimated to be of the order of 4.96 million tones.

5.12 Varieties and types of iodised salt

Iodisation can be carried out on various types of salt. Crystal, crushed, powdered and refined varieties of salt could be iodised. In case of crystal salt, it should be ensured that the size does not exceed 4 mm so as to achieve uniform iodisation. Iodised salt is available in the market in the following forms:

- Crystal iodised salt packed in 75 kg High Density Polyethylene (HDPE) woven sacks, which is invariably marketed at retail level in loose.
- Crushed iodised salt packed in 75 kg in HDPE woven sacks sold at retail level in loose.
- Powdered iodised salt packed and sold in 1 and ½ kg plastic pouches, and
- Refined iodised salt is packed and sold in 1 and ½ kg plastic pouches.

There is a misconception in certain quarters that only salt packed in 1 or ½ kg plastic pouches is iodised. This is totally baseless; even salt sold in loose could also be in iodised form. Of course, iodised salt packed in 1 kg or ½ kg plastic pouches retain iodine for longer period and it is not adversely affected by conditions like rain, humidity, dust etc. Hence, it would be preferable, to purchase iodised salt packed in pouches.

5.13 Price of iodised salt

The price of iodised salt like any other commodity varies depending upon the quality of raw salt used, packing material etc. Crystal iodised salt in 75 kg packing is sold at production sources (ex-factory) at a price ranging from Rs. 300/- to 500/- per ton whereas, the crushed iodised salt is costlier by Rs. 50 to 60 per ton. Powdered iodised salt in 1kg polythene pouch is available at about Rs. 1 per kg at the production centres.

The price of iodised salt at retail level depending on the variety and packing, ranges from Rs. 1.50 to 6.00 per kg, as indicated below:

1	Crystal iodised salt in loose	Rs. 1.50 – 2.00
2	Powdered/Crushed iodised salt in loose	Rs. 2.00 – 2.50
3	Powdered iodised salt in pouches	Rs. 2.50 – 4.50

4	Refined iodised salt in pouches	Rs. 5.50 & above
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5.14 Administration

Salt Department is headed by the Salt Commissioner with its head quarters at Jaipur (Rajasthan). Under him, there are 5 Regional Offices located at Chennai, Mumbai, Ahmedabad, Jaipur and Kolkata. The first four are headed by Deputy Salt Commissioner and the last by an Assistant Salt Commissioner. The IDD Control Division is under the charge of the Deputy Salt Commissioner (NIDDCP) stationed in the Head Quarters Office, Jaipur.

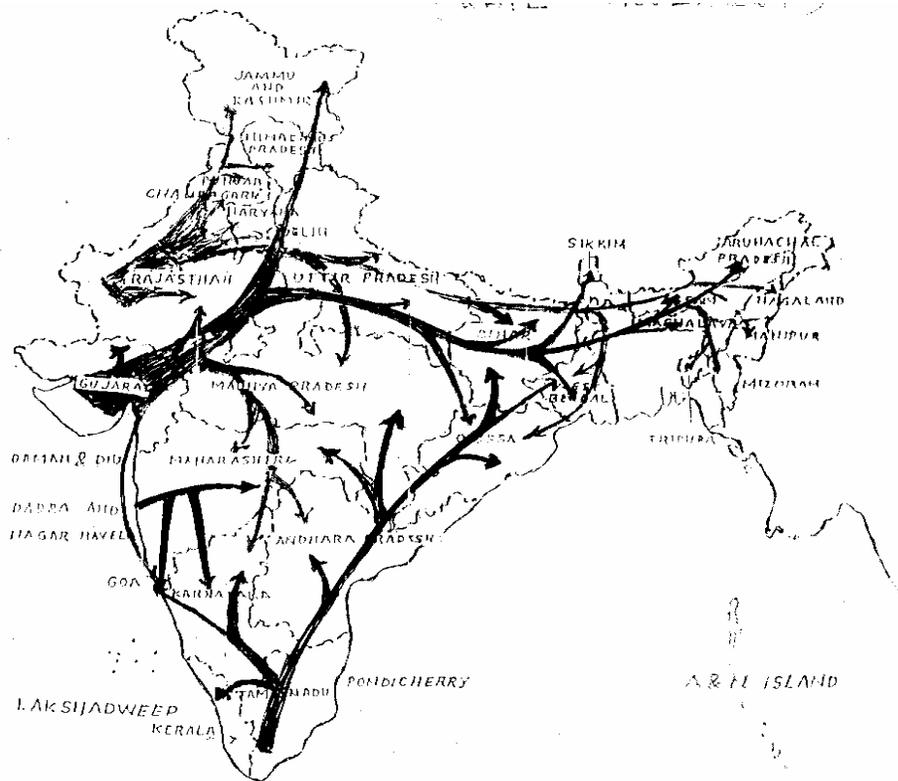
5.15 Production

Salt production of 17.8 million tones was achieved during the year 2002, the highest production so far. Cooperative Societies contributed 7.3 % of the total production of salt during 2002 as against 6 % in 2001. There are 6 Public /Joint sector undertakings engaged in the manufacture of salt. Their total production during the year 2002 was 0.44 million tones which represents about 2.5% of the total production of salt in the country.

The target of iodised salt production for the year 2002-2003 was 5.2 million tones while the production of iodised salt was 3.69 million tones, i.e. 63.62%.

5.16 Statistical Data of Salt Production and Distribution

S. No.	Salt Particular	2002 (in million tons)
1.	Production Recognized Units Un-recognized Units (area less than one acre) Total	 12.6 5.2 17.8
2.	Distribution i) Human Consumption ii) Export iii) Industries Total	 4.7 1.3 7.0 13.0
3.	Iodised Salt Production Supplies	 4.2 3.7



Salt Transportation Route – Rail and Road

Indian Scenario: Use of Iodised Salt National Family Health Survey – 2 1998-1999

- 71% of the population consuming some iodine in salt
- 49% use adequately iodized salt (iodine content not less than 15 mg / Kg of salt)
 - ... **the glass is only half full !!**
- 22% use inadequately iodized salt
- **29% use salt with no iodine**

Chapter VI

ROLE OF SALT DEPARTMENT IN ELIMINATION OF IDD IN INDIA

By Sri S. Sundaresan, Salt Commissioner, Jaipur

6.1 Spectrum & Magnitude of IDD:

Iodine is one of the essential nutrients required for normal mental and physical development of the human beings. The human body requires around 150 micrograms of iodine every day, which works out to less than a teaspoonful (5 gm over a life span of 70 years). The Disorders caused due to deficiency of nutritional iodine in the food/diet are called IODINE DEFICINECY DISORDERS (IDD). It affects the people of all ages, both sexes and different socio-economic status. It could result in abortion, still birth, mental retardation, deaf-mutism, dwarfism, squint, cretinism, goitre of all ages, neuro-motor Defects. It also causes a loss of about 13 IQ points in children hampering human Resource Development.

The Surveys conducted by the Central /State Health Directorates, Indian Council of Medical Research (ICMR) and Medical Institutes have revealed that not even a single State/Union Territory is free from the problem of IDD. According to the Director General Health Services, Ministry of Health & Family Welfare, New Delhi, out of 312 Districts surveyed in 28 States and 6 Union Territories, 254 districts are endemic to IDD where the prevalence is more than 10 per cent. In our Country, it is estimated that 200 million people are at risk of IDD.

6.2 Salt–The Most Accepted Carrier For Iodine Supplementation

Salt is the most effective and widely accepted vehicle for supplementation of iodine for the following reasons:

- Mixing of iodine to salt does not impart any colour, taste or odour to the salt
- Irrespective of economic status, all the population universally consume it in a fairly uniform quantity daily
- As production of salt is limited to a few centres, monitoring production, supply and quality of iodised salt is relatively less cumbersome to any other method of iodine supplementation

6.3 National Goitre Control Programme

Government of India launched National Goitre Control Programme (NGCP) in 1962 whereby it was decided to supply iodised salt for human consumption to identified Goitre endemic areas like Sub-Himalayan Region. The production of iodised salt was restricted to only 3 different plants under Public Sector/Government at Sambhar Lake in Rajasthan, Howrah in West Bengal and Kharagoda in Gujarat. The program was implemented by Directorate General of Health Services of the Ministry of Health in collaboration with Salt Commissioner. The Program was restructured in 1984, following the recommendations of Central Council of Health and the Government took a policy decision to iodise the entire edible salt in the country by 1992. Two of the major policy decisions taken were:

- Salt Department, (under Ministry of Commerce & Industry, Government of India,) was identified as the Nodal Agency to monitor Production and Quality Control of Iodised Salt at Production Sources and Distribution of Iodised Salt in the entire country
- Private Sector were permitted to manufacture commercial production of Iodised Salt

The program commenced in April 1986 in a phased manner.

National Iodine Deficiency Disorders Control Programme (NIDDCP)

In August, 1992, the NGCP was renamed as NIDDCP with a view to cover a wide spectrum of Iodine Deficiency Disorders with the following objectives

- To carry out Surveys to assess the magnitude of the IDD's
- To produce and supply of iodised salt in place of common salt
- To resurvey after every 5 years to assess the extent of IDD's and the impact of iodised salt
- To install Laboratory monitoring of iodised salt and Urinary Iodine Excretion
- To provide Health Education

6.4 Salt Department's Role & Universal Salt Iodisation

Over the last two decades various measures had been taken by Salt Department and tremendous progress has been made as far as creation of iodisation capacity, production and supply of iodised salt:

- The Production of Iodised Salt, which was just about 3 lakh tones in 1985, has reached about 42 lakh tones in 2003, whereas the total requirement of edible salt for human consumption was about 50 lakh tones.
- More than adequate capacity for salt iodisation has already been created in the country to the tune of 123 lakh tones (from 859 units) which includes a capacity of 37 lakh tonnes of Refined Iodised Free Flow Salt/ Vacuum Evaporate Iodised salt (from 40 refineries)
- About 75 to 80 per cent of the population have access to Iodised salt as revealed from the actual supplies of about 39 lakh tones of iodised salt during 2003.

6.5 Production Of Iodised Salt:

Salt Department facilitates establishment of Salt Iodisation Plants and Refineries by providing technical knowledge. Commercial manufacture of Iodised salt is recognized by registering the units after field inspection to ensure that the plants are installed as per approved Design for production of iodised salt. Small Scale Manufacturers were facilitated to join the mainstream – Salt Iodisation Program by providing 40 Salt Iodisation Plants and iodising chemical, potassium iodate free of cost through UNICEF financial assistance. The External Evaluation of the status of the NIDDCP (1996) conducted by the Canadian International Development Agency (CIDA) has remarked

that India has offered to the world two programmatic technologies: iodizing machinery and the spot testing kit which are important tools for producing good quality iodised salt. Till 1992, to encourage the massive salt iodisation program, the iodizing chemical – potassium iodate was subsidized by cash or in kind. Similarly Registration for Salt Washeries / Refineries are accorded by Salt Department. The production of Refined Salt during 2002 was 13 lakh tones, a little less than one-third of the total production. More than 35 per cent of the iodised salt produced is marked in small packing of 1 or ½ kg. This enables better retention of iodine in the salt and also shows the increasing consumer preference for consumer packs and switch over from traditional purchase practices.

6.6 Distribution Of Iodised Salt:

Salt Commissioner, in coordination with Railways, draws a Program called Zonal Scheme every year for distribution of Iodised Salt by Rail to all parts of the country. As an incentive for iodised salt manufacturers, Preference in Traffic under B Priority is accorded to Iodised Salt and under C Priority to Refined Salt. The objective is to ensure equitable distribution in all parts of the country and timely movement without any scarcity of the essential commodity, Salt. About 70 per cent of the total supplies of iodised salt for human consumption is by Rail and the rest is by road. Salt Commissioner, from time to time, keeps a close watch on the movement and requirement pattern and arranges program throughout the year. No scarcity of salt is reported from anywhere in the recent past which shows the effective monitoring of the distribution by the Salt Department.

6.7 Quality Monitoring:

26 Salt Test Laboratories are established at production centres. Field officials regularly visit the Iodisation Plants, Railway loading stations and Ports for drawal of Iodised salt samples at the time of production, from the stock and at the time of loading. While they carry out on the spot test by use of Field Test Kit, the samples are also analysed at Departmental Salt Test Labs and results informed to the concerned manufacturers for taking any corrective measures. Besides the field officials at the time of their visit, check the records maintained by the manufacturer regarding laboratory maintained by them, procurement of potassium iodate, etc. In case of repeated defaults, penal action is also resorted to in the form of deduction of wagon quota for movement by rail, suspension and cancellation of the registration for commercial manufacture of iodised salt. They also check whether the manufacturer also complies with the statutory labeling and packing standards for edible salt.

Further 9 Mobile Salt Test Laboratories have also been deployed at important production centres in various states for on the spot analysis of iodised salt and to keep a strict vigil on production and supply of iodised salt at the Plant site as well as at loading stations. Performance reports are issued to the manufacturers immediately suitably advising them for improvement of quality wherever necessary. Mobile labs are also used for advocacy purposes viz Distribution of posters, placards, booklets on IDD and other publicity materials. They are also used for Situation Analysis Studies in various districts on quality, availability and price of iodised salt and also to assess the awareness levels.

On an average about 90,000 samples are drawn and analysed at our laboratories and as many as twice that are tested by Spot Test Kit. About 62 per cent of samples were found

to be adequately iodised. This is corroborated further from the results of the National Family Health Survey (NFHS-II, 1998-99)_which indicates that about 49 per cent of the population are consuming adequately iodised salt and that 70 percent are consuming iodised salt. MIS Reports on Quality of Iodised Salt available at consuming states, received from 14 states reveal that about 81 per cent of the samples tested had adequate iodine during 2003.

6.8 GOI-UNICEF Activities

Salt Department with financial support from UNICEF organized various activities since the last decade for

- Creating awareness amongst the public on IDD and benefits of Iodised Salt through Rally, Human Chain, National / State level Seminar/Workshops, Celebration of Global IDD Day on 21st October every year
- Publication of Books/ Pamphlets/Videofilms/Brochures / Release of full page supplementaries in leading regional / national dailies / Printing of Sun logo on Postal Stationery
- Undertaking Studies for assessing awareness levels, situational analysis of availability, quality and price of salt, census of salt manufacturing units / iodisation units, National multicentric study on monitoring quality of iodised salt through networking of medical colleges in Southern States, Knowledge, Attitude and Practice Studies etc.
- Organisation of National / Regional / State level Meetings of all stakeholders of NIDDCP to solicit their cooperation
- Sensitisation / Advocacy meetings with salt manufacturers & traders
- Strengthening Quality Monitoring system at production sources through Training of Quality Control personnel of Salt Department and Industry, distribution of field test kits, deployment of Mobile Salt Test Laboratories at major production centres
- Evaluation of Universal Salt Iodisation in India (1997-98)

The Progress achieved on Universal Salt Iodisation (USI) over the last two decades was possible because of these various IEC activities undertaken by the Department which caused increase in production and consumption of iodised salt in the country.

6.9 Goal of USI – Bridging the Gap

The Government's Goal of NIDDCP is to reduce the prevalence of IDDs below 10 percent in the entire country by 2010 A.D. 20-25 per cent of the population are still to be provided access to Iodised salt. Further the iodised salt consumed by everyone should be adequately iodised and iodised salt manufacturers and traders shoulder great responsibility in ensuring the quality of iodised salt before supplying it to masses. As the Nodal Agency, Salt Department's Role is pivotal and crucial for not only achieving the Universal Salt Iodisation and consumption but also for sustaining the progress achieved. Salt Commissionerate is thus playing a coordinating role involving all the stakeholders and is making sustained efforts for ensuring their unstinted cooperation and commitment for effective implementation of NIDDCP.

Chapter VII

National Iodine Deficiency Control Programme (NIDDCP)

7.1 Introduction

This programme was initially named as National Goitre Control Programme (NGCP) in 1962. However, in 1992 it was renamed as NIDDCP to give due importance to the spectrum of physical and mental disorders caused due to iodine deficiency affecting all stages of human growth and development.

Tenth Five Year Plan (2002-2007) Goals

- i. Achieve universal access to iodised salt
- ii. Generate district-wise data on iodised salt consumption
- iii. Reduction in the iodine deficiency disorders (IDD) prevalence in the country to < 10% by 2010

7.2 National Iodine Deficiency Control Programme (NIDDCP)

7.2.1. Objectives:

The main objectives of the program are:

- i. Baseline surveys to assess the magnitude of iodine deficiency disorders in the districts
- ii. To supply iodised salt in place of non-iodised salt
- iii. To resurvey the districts after every five years to assess the prevalence of iodine deficiency disorders and impact of universal consumption of iodised salt
- iv. Monitoring of iodine content of salt and urinary iodine excretion levels in the population
- v. Nutrition and health education to improve the universal consumption of iodized salt

The goal of NIDDCP is universal iodization of salt for human consumption so as to reduce the prevalence of IDD below 10% in endemic districts of the country.

7.2.2 Beneficiaries and Services

The beneficiaries of the programme are the entire population of the country

7.2.3. Implementation

The Directorate General of Health Services (DGHS) of the Ministry of Health and Family Welfare, Government of India is the nodal agency for policy decisions on the NIDDCP.

The Salt Commissioner's Office under the Ministry of Industry is responsible for monitoring the production and distribution of iodised salt to all the states and Union Territories. The Salt

Commissioner, in consultation with the Ministry of Railways, arranges for movement of iodised salt from the production sites to the states and union territories on a priority basis.

The important activities being undertaken by the NIDDCP are:

Directorate General of Health Services (DGHS)

- i. Technical guidance on NIDDCP to states and Union Territories
- ii. Undertaking independent IDD surveys in the states and Union Territories
- iii. Imparting training in IDD to the state health personnel
- iv. Collection, compilation and analysis of relevant data on IDD from the states
- v. Monitoring the distribution of iodized salt at consumer level through the State Health Directorate/State Prevention of Food Adulteration (PFA) Authority

DGHS/ Salt Commissioner/ Department of Women and Child Development (DWCD)

- i. Intersectoral Coordination and maintenance of close liaison with the Ministry of Industries, Railways, Department of Women and Child Development, Information Broadcasting and various stake holders of NIDDCP in the states and Union Territories
- ii. Monitoring the quality of iodised salt at the production level in collaboration with the office of the Salt Commissioner.
- iii. IEC activities to generate awareness about IDD in the country

7.2.4 . Current status:

Available data suggest that there has been substantial increase in the availability and consumption of iodised salt during the 1990s. The National Family Health Survey – 2 (NFHS-2) survey (1998-99) showed that 49 per cent of households use iodised cooking salt at the recommended level of 15 parts per million (ppm) or more, whereas 22 per cent use salt containing less than 15 ppm of iodine. Twenty eight per cent of the households use salt that is not iodised at all. The survey also reports that the low income group has the lowest percentage of population consuming adequately iodised salt. The recent Reproductive and Child Health (RCH) surveys (2002 - 2003) have reported a significant decline in the consumption of adequately iodised salt.

The data from NFHS – 2 shows that in coastal states like Tamil Nadu, Andhra Pradesh, Kerala, and Gujarat, the percentage of households consuming adequate iodised salt is much lower than in many of the northern states. One of the reasons could be that the salt transported by road is not subject to any kind of quality control regarding iodisation. This loophole in the law makes it possible for transport of non-iodised salt by road to areas even beyond 250 km. Therefore, these states have ready access to non-iodised salt.

Chapter VIII

Progress Towards Sustainable Elimination of IDD

8.1 Monitoring and Verification

The insistence on sustainability is not a trivial concern. The spectacular success in eradicating smallpox is frequently taken as a model for the IDD elimination campaign but these two public health menaces represent fundamentally different problems. A virus caused smallpox and once the virus was killed the possibility of the recurrence of the disease ended. Iodine deficiency, on the other hand, is not caused by a single etiologic vector but is a condition similar to poverty, crime, and hunger, and can only be controlled, not eradicated. Thus, to have sustainable elimination of iodine deficiency, a country must have a programme that will endure long beyond the initial achievement of iodine sufficiency.

Several historical examples justify this concern for sustainability. Some were described in the chapter on Latin America, where a long experience with iodine prophylaxis programmes has provided enough time to document their frequent failure. For example, initially successful efforts in Guatemala, Colombia, and Thailand later lapsed, in each instance because of complacency, lack of vigilance and monitoring. We must keep the added requirement of sustain ability firmly in view. Otherwise, the effort will consume an enormous expenditure of resources and time, to achieve only a temporary reprieve from the ravages of iodine deficiency.

In relation to sustainability two key issues deserve consideration-

1. What criteria can a country use to verify that it has achieved virtual elimination of IDD, and
2. How can a country ensure that this elimination, once achieved, will be sustained?

To address these questions, several international groups are collectively considering criteria for assessing the progress towards IDD elimination. The following guidelines have been proposed by ICCIDD, in consultation with many experts from countries and international agencies.

8.2 Proposed Guidelines for Tracking Progress Towards Elimination of IDD

A country with universal neonatal screening, preferably by TSH in a sufficiently sensitive assay, may be declared free of iodine deficiency if less than 0.3% of neonates need to be recalled for suspicion of congenital hypothyroidism. It is not necessary that any other criterion be established.

For countries where there is no universal screening of newborns at least two of the following three criteria should be met to establish that sustainable elimination of iodine deficiency is being achieved.

- 1. All salt for human and animal consumption** in all regions where IDD is known or suspected, should be iodized at a reasonable level (usually 30-100ppm) at the factory, so that representative salt samples obtained regularly from retail outlets, or preferably from homes, have iodine content at or above a level of 20ppm in all regions.
- 2. Samples of urine** obtained on a regular basis in a statistically valid mode should have a median iodine content of 100 µg/l.
- 3.** In regions where IDD is known or suspected, the prevalence of **total goitre** (i.e. grades 1 and 2, palpable plus visible) in representative surveys of children of school age (e.g., 8-10 years old) should be less than 5% as ascertained by competent observers and preferably confirmed by ultrasonography.

In addition to meeting two of the above three criteria, **sustainability** must be established according to the following guidelines, as applicable.

- 1. A National IDD Commission** should be in operation with a responsibility for the continuous monitoring of the status of iodine deficiency and of the iodine content of salt, according to established criteria, including mandatory public reporting of IDD status at regular specified intervals (e.g. every three to five years) by designated units (e.g. the programme, the Ministry of Health) that are technically competent and adequately financed.
- 2. The government, the private sector, and consumers** should have a high awareness of iodine deficiency and be committed to its sustained elimination.
- 3. The salt industry** should have the commitment, technical resources, and responsibility (frequently mandated by legislation) to sustain effective iodization of salt, including its production, distribution, and financing including the consumer.
- 4. The supply of iodine for salt iodization** is assured either through private purchase by the salt manufacturers or through the government the availability of foreign exchange.
- 5.** The availability, relative cost, and **perceived health benefits** of iodized salt should make consumers prefer it to the uniodized product.
- 7.** The IDD programme should have ready access to local or regional facilities to measure iodine levels in salt and to a central laboratory competent to measure urinary iodine or neonatal blood TSH concentrations, or both, at affordable rates.

IDD Program Status in India

State /UT	Total Districts	Total surveyed	Endemic	Ban Status	IDD Cell
Andhra Pradesh	23	10	9	Partial	Yes
Arunachal Pradesh	10	10	10	Complete	Yes
Assam	23	18	18	Complete	Yes
Bihar	37	13	13	Complete	Yes
Chhatisgarh	16	2	2	Complete	No
Goa	2	2	2	Complete	Yes
Gujarat	25	16	8	No Ban	Yes
Haryana	19	10	9	Complete	Yes
Himachal Pradesh	12	10	10	Complete	Yes
Jammu & Kashmir	15	14	11	Complete	Yes
Jharkhand	18	9	8	Complete	No
Karnataka	27	17	6	Complete	Yes
Kerala	14	14	11	No Ban	Yes
Madhya Pradesh	45	14	14	Complete	Yes
Maharashtra	35	29	21	Partial	Yes
Manipur	9	8	8	Complete	Yes
Meghalaya	7	2	2	Complete	Yes
Mizoram	8	4	4	Complete	Yes
Nagaland	8	7	7	Complete	Yes
Orissa	30	4	4	Complete	Yes
Punjab	17	3	3	Complete	Yes
Rajasthan	31	3	3	Complete	Yes
Sikkim	4	4	4	Complete	Yes
Tamil Nadu	29	12	12	Complete	Yes
Tripura	4	3	3	Complete	Yes
Uttar Pradesh	71	25	20	Complete	Yes
Uttaranchal	13	9	9	Complete	Yes
West Bengal	18	5	5	Complete	Yes
A & N Islands	2	2	2	Complete	Yes
Chandigarh	1	1	1	Complete	Yes
Daman & Diu	1	1	1	Complete	Yes
D & N Haveli	1	1	1	Complete	Yes
NCT Delhi	1	1	1	Complete	Yes
Lakshwadeep	1	1	1	Complete	No
Pondicherry	4	4	4	Complete	No
Total	587	283	247		

Source: Directorate General of Health Services, Ministry of Health & Family Welfare, 2000

Chapter IX

Partnership of ICCIDD with BSG and other NGOs

National level salt sample collection and analysis by titration and salt testing kit method for availability of iodized salt in India, October 1997 to June 1998

9.1. Introduction:

India has a vast network of Non Governmental Organisations (NGOs) who have over the years, established themselves as a credible and committed partner for providing health and developmental inputs. Though, most of the NGOs work independently, they have a loosely knit consortium at state and national level. Another voluntary agency which has a nation wide presence is the Bharat Scouts and Guides (BSG) - the Indian chapter of International Scouts and Guides. The activities of BSG are oriented towards inculcating the spirit of discipline and social commitment in the students. Health related activities are a part of this activity. We decided to use these two channels to collect information about iodised salt in various parts of India. The present Director Mr. G. Saha took over as Director in the month of March 2002. ICCIDD reestablished contacts with BSG. As a result, Mrs. Pushpa Nadkarni, Joint Director actively participated in the one day "Sensitization Workshop" held at AIIMS jointly by UNICEF-ICCIDD-AIIMS on 16th March, 2002. Bharat Scouts and Guides put up a stall at the Workshop venue, highlighting the latest foray BSG has made into various developmental programmes in the country.

9.2 Objective:

To collect information about iodised salt availability, pricing and its use from all the districts of the country.

9.3 Study period: October 1997 - June 1998

9.4. Methodology:

The NGOs were identified by two methods-

- i) Voluntary Health Association of India (VHAI) was asked to provide a list of NGOs through their state chapters
- ii) The District Commissioner of each district (District is the administrative unit in the country and the Commissioner is the administrative head) were requested to provide names of two NGOs from their district who were willing to work in this field.
- iii) Similarly, all Bharat Scouts and Guides District Commissioners were also requested to inform their district people for collection and dispatch of salt samples.

All the NGOs and the District Commissioners of the 480 districts in the country were sent a letter seeking their co-operation in October, 1997. Booklets and pamphlets on IDD were also

mailed to them. Each NGOs selected was sent 10 prepaid self addressed envelopes which contained a zip lock polythene bag for sending the salt sample from the field site to ICCIDD office and laboratory in Delhi. NGOs desirous of having more samples were sent more envelopes. The NGOs were requested to send from each district of the state a total of 20 salt samples from retail shop. Of these, 10 (ten) were to be from urban areas and 10 from rural areas. All NGOs were also sent iodised salt spot testing kits so that the results were also known to them. They could use this information to organise and plan any community education activity. The salt samples received in Delhi office were quantitatively tested for iodine content by the titration method.

We derived a list of 147 NGOs to participate in this study. Likewise, we sent 45 letters requesting Bharat Scouts and Guides and the response was received from 39 Units of Bharat Scouts and Guides.

9.5 Results:

A total of 80 NGOs from different states and 39 subunits of Bharat Scouts and Guides participated in this study. They are listed below.

State wise distribution of participating NGOs and BSG units

S.No.	State	NGOs	Bharat Scouts and Guides
1.	Andaman Nicobar	2	3
2.	Arunachal Pradesh	Nil	Nil
3.	Assam	10	Nil
4.	Andhra Pradesh	6	4
5.	Bihar	4	1
6.	Delhi	10	Nil
7.	Goa	3	Nil
8.	Haryana	7	3
9.	Himachal Pradesh	3	Nil
10.	Karnataka	3	2
11.	Madhya Pradesh	3	6 (MPR [*])
12.	Maharashtra	8	11 (BR ^{**} + B ^{***})
13.	Meghalaya	1	Nil
14.	Mizoram	Nil	Nil
15.	Orissa	4	2
16.	Punjab	5	1
17.	Sikkim	1	Nil
18.	Tamil Nadu	4	Nil
19.	Tripura	1	Nil

20.	Uttar Pradesh	2	Nil
21.	West Bengal	3	6
	TOTAL	80	39

* Madhya Pradesh Railways, ** Bombay Railways, *** Bombay

80 NGOs sent a total of 1539 samples and 39 units from Bharat Scouts and Guides sent 562 samples to the Delhi office in the month of November 1997 to March 1998. The details of procedure Followed and Responses received are given in Table-9. The iodine content in the salt samples was measured by kit method and titration method. The details of the data on content of iodine in the samples are given in annexure

Details of the Procedure Followed and Responses received

S. No.	Details	Bharat Scouts	NGOs
1.	Request letter for participation sent to	45 units	480 Districts
2.	Response received	243 sub-units	86 NGO's
3.	Samples received from	39 units	80 NGO's
4.	Total sample received from Nov. to Jan.	562 samples	1539 samples
6.	Analysis by titration	84 samples	791 samples

9.6. Salt Testing Kit Method

1. A total of 971 (254+717) i.e. 63% samples from NGOs out of 1539 salt samples tested adequate i.e. iodine equal or more than is 15 ppm, for iodine content by the kit.
2. A total of 314 (138+176) i.e. 55.87% samples from BSG out of 562 salt samples tested adequate i.e. iodine equal or more than 15 ppm, for iodine content by the kit.

Iodine Content – Salt Testing Kit Method

Iodine content (ppm)	No. of Salt Samples from NGOs	No. of Salt Samples from BSG
0 PPM	260	166
7 PPM	308	82
15 PPM	254	138
30 PPM	717	176
Total	1539(100%)	562(100%)

9.6 Titration Method

Of the 1539 salt samples from NGOs received at Delhi office, only 791 samples had sufficient quantity for analysis by titration method. Similarly, of the 562 salt samples from Bharat Scouts received at Delhi office, only 84 samples had sufficient quantity for analysis by titration method.

Iodine Content : Titration method

Iodine Content (ppm)	No of Samples from NGOs	No of Samples from BSG
0 ppm	74 (9.35%)	1 (1.19%)
0 - 7 ppm	82 (10.36%)	3 (3.57%)
7 - 15 ppm	173 (21.87%)	16 (19.04%)
15 - 30 ppm	207 (26.16%)	17 (20.23%)
30 + ppm	255 (32.23%)	47 (55.95%)
Total	562 (100%)	84 (100%)

9.7 Conclusions:

The objective of this project was to collect information about iodised salt availability, pricing and its use from all the districts of the country. The Bharat Scouts and Guides were requested to inform their District people for collection and dispatch of salt samples to CCM, AIIMS, Delhi. The salt samples were tested by two methods i.e. Spot Testing Kit and Titration Method.

1. Partnership between ICCIDD and Bharat Scouts and Guides

1.1 Salt Testing Kit method: A total of 314 (55.87%) samples out of 562 salt samples tested adequate i.e. iodine equal or more than 15 parts per million (ppm).

1.2 Titration method: A total of 84 samples were sufficient for Titration method. Sixty-four samples (80 %) samples were more than 15 ppm, the recommended level at consumption point.

2. Partnership between International Council for Control of Iodine Deficiency Disorders (ICCIDD)-Voluntary Health Association of India (VHAI)-National NGOs:

2.1 Salt Testing Kit Method: A total of 971 (63%) samples out of 1539 salt samples tested were adequate i.e. iodine equal or more than 15 ppm.

2.2 Titration method: Only 791 samples of the 1539 salt samples received at Delhi office had sufficient quantity for analysis by titration method. More than 58 % (462) samples had iodine more than 15 ppm.

3. Partnership with the NGOs to collect data regarding iodised salt is feasible.

4. Our preliminary reports indicate that about 58% - 84% of the salt samples at retail level contain adequate iodine.

5. We will be making special efforts to contact the non responders. This partnership needs to be strengthened and enlarged so that a nationally representative sample is used for estimation of availability of iodised salt at retail and household level.

9.8 Milestones in the Annals of ICCIDD –BSG Collaboration

ICCIDD entered into a partnership with BSG in 1997 when a formal letter was addressed to the then director of the BSG. Since then it has been a very successful partnership. The date wise table of the major milestones is summarized in the table 7 given below.

Milestones

	Date	Place	Event
1.	27 May 1997	New Delhi	Letter written by ICCIDD to, the Director, BSG
2.	October 1997 to June 1998	New Delhi	Information Collection about Availability of Iodised Salt in India-Partnership of ICCIDD with BSG, VHAI and other National NGOs
3	June 2002	New Delhi	Presentation by ICCIDD in front of about 1000 Scouts and Guides and Rangers and Rovers assembled for the President's rally at Delhi Cantonment
4.	15 th July, 2002	New Delhi	Meeting with Mr. G. Saha, Director, BSG
5..	28 th July, 2002	Ambala, Haryana	Presentations and distribution of prepaid envelopes for sending 20 grams of salt sample by ICCIDD for about 300 Scouts and Guides from 18 states at the rally
6.	26 th to 28 th September, 2002	Pachmarhi, Madhya Pradesh	Various Information, Education and Communication (IEC) and training activities by ICCIDD for about 125 senior members of BSG
7.	18-22, October, 2002	Gadpura, Haryana	ICCIDD conducts a module on IDDE programme at National Community Leaders Training Programme of BSG
8.	27 th October to 1 st November 2002	Raipur, Madhya Pradesh	ICCIDD put up an exhibition-cum-demonstration stall for about 3000 tribal Scouts and Guides at the national rally
9.	8th June 2003 to 12 th June 2003	Pachmarhi, Madhya Pradesh	Various IEC and training activities by ICCIDD for about 550 BSG members from all over India who assembled for several training camps
10.	7 th October, 2003	New Delhi	ICCIDD members train about 100 Teachers (Scout Masters and Guide Captains) of BSG
11.	20 th October, 2003	New Delhi	Compilation of Results of Salt Testing and Experience Sharing by Teachers and Students
12.	21 st October,	New Delhi	IDD Day Celebrations

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9.9 Rally at Delhi Cantonment: June, 2002

Presentation by ICCIDD to about 1000 Scouts and Guides assembled for the President's rally at Delhi Cantonment

About 1000 Scouts and Guides from all over the country assembled in the capital for President's Rally scheduled on 5th June, 2002 at New Delhi. The Scouts and Guides, and Rangers and Rovers – in the age group of 14 to 18, assembled in Delhi on 1st June 2002. The Scouts and Guides leadership responded to ICCIDD requests and readily invited our team to make a presentation and interact with the children as well as the Scouts Masters and other teachers accompanying the children from all States on Sunday, the 2nd June, 2002.

ICCIDD team visited the camp at Central School at Delhi Cantonment and made the presentation to the group. It was a close interactive session with spontaneous response that elicited a number of questions from the audience, especially the children.

9.10 Meeting with Mr. G. Saha, Director, BSG: 15th July, 2002

The meeting of the ICCIDD Team and Mr. G. Saha, the Director BSG, took place at their National Headquarters (Lakshmi Majundar Bhawan, I.P.Estate, New Delhi) on 15th July, 2002. Mrs. Pushpa Nadkarni, Joint Director also attended the meeting. The broad agenda for the meeting was:

- I. Recall of past association with Scouts and Guides
- II. Proposal for future collaboration on an ongoing basis
 1. Participation in BSG Camps
 2. Distribution of promotional materials as part of awareness campaign through Bharat Scouts and Guides network
 3. Conducting Information, Education and Communication (IEC) programmes at national and state events
 4. Dedicated programme in October 2002 – 'IDD Month'
 5. International event in Thailand in December 2002

9.11 Rally at Ambala City, Haryana , 28th July, 2002

Presentations by ICCIDD for about 300 Scouts and Guides from 18 states

Following our meeting and discussions with Mr. G. Saha, National Director, Bharat Scouts and Guides on 15th July, 2002 at the National Headquarters in New Delhi, BSG invited ICCIDD to join the Scouts and Guides Camp at Ambala City in the State of Haryana. This camp was specially organized for the Award Winners of all President Scouts and Guides of

India. Thus, some of the participants were those who have gone beyond schools and colleges. The participants were about 300 in numbers. They represented 18 States.

ICCIDD were called to make two presentations – one in the forenoon exclusively for the camp participants. The afternoon programme was the valedictory function where civic officials, educationists, district administration representatives and others were invited. The session with the camp participants were interactive in nature. The standard ICCIDD presentation was shared. It was apparent that the students were having some information about IDD and need for consumption of iodised salt in India.

During the interactions with officials, ICCIDD were invited to make educational awareness programmes in the respective states during their various programmes. Mr. Samir Choudhury, Joint Director (in charge) Training Centre, Pachmarhi, Madhya Pradesh suggested ICCIDD to visit the Centre in Pachmarhi, Madhya Pradesh during various training programmes, especially ‘Training of Trainers programmes’.

Mr. G. Saha, National Director was present at Ambala. He suggested that BSG and ICCIDD jointly work out a year long programme and agreed to coordinate centrally for ICCIDD members visit to various states as well as national programmes.

Each participant student was given the prepaid envelop for sending 20 grams of salt sample to ICCIDD for analysis. The format for reporting the sample and ICCIDD letter were given. Testing of three samples of salt for iodine presence/absence was also demonstrated. This imbibed interest in the children and they wanted to do this at their locations.

Thereafter, Mr. Saha spoke to the gathering and guided them how to spread the message at their settings for creating awareness on the need for consumption of iodised salt. Word of mouth was one method suggested.

9.12 Pachmarhi , Madhya Pradesh : 26th to 28th September, 2002

Various Information, Education and Communication (IEC) and training activities by ICCIDD for about 125 senior members of BSG at National Training Centre, Pachmarhi, Madhya Pradesh

Background: As part of the ongoing programmes with Bharat Scouts and Guides, ICCIDD were invited to conduct a session on IDD Elimination on 27th September, 2002. The occasion was a training programme on “Modular Training” for senior trainers with stated participation from all States.

National Training Centre, Pachmarhi: Two Programmes, viz. Course for Assistant Leader Trainers (ALT) and Rover/Ranger Samagam were held at the National Training Centre. A two member team from ICCIDD spent a week during these programmes and held various IEC and training activities with the participants.

Attendance: ICCIDD presentations were programmed from 0830 on 28th September, the penultimate day of the training programme. Participants of a training programme at the National Adventure Institute (NAI) were also specifically programmed to participate at this session. In all, there were 125 participants.

Participants' Profile: The participants were seniors belonging to different walks of life, some in active service, some retired, and all engaged in various socially relevant activities, besides the BSG full-timers.

The Module: After the introductory, the documentary on IDD- 'Trishna' was exhibited, followed by Power Point Presentation and interactive sessions. The message was well received. There was not a non-conforming voice. Resolve was evident on all faces to join hands to carry ahead the programme.

Outcome: In the evening at the time of the traditional camp fire they took a pledge to collaborate in the fight for elimination of Iodine Deficiency Disorders. Participants from all States requested for copy of Trishna (a documentary on IDD), IEC materials and salt testing kits. They were informed that in phased manner, all the states will get the requisite material, starting with 19 states. It was mentioned that after the successful programmes for Leprosy Eradication and Oral Rehydration Therapy, Iodine Deficiency Disorders Elimination will be the next programme of that magnitude.

9.13 Gadpura, Haryana: 18th to 22nd October, 2002

National Community Leaders Training Programme was conducted at a location 10 kilometers away from Ballabgarh in Gadpura, Haryana from 18-22 October, 2002. ICCIDD was invited to conduct a module on IDDE programme at this event.

9.14 Raipur: 27th October to 1st November, 2002

ICCIDD put up an exhibition-cum-demonstration stall for about 3000 tribal Scouts and Guides at the national rally

A national rally of 3000 tribal Scouts and Guides was held from 27th October to 1st November, 2002. ICCIDD was invited to put up an exhibition-cum-demonstration stall. ICCIDD Representative stayed with the participants in the Camp for two days and interacted widely. With them it was discussed that ICCIDD will train a team of Scouts and Guides who will, thereafter, do the demonstrations.

9.15 Pachmarhi, Madhya Pradesh : 8th June to 12th June 2003

Various IEC and training activities by ICCIDD for about 550 BSG members from all over India who assembled for several training camps

Situated at an altitude of 1067 meters and surrounded by the profuse greenery of the hills bridal paths and tranquil forest glades, Pachmarhi is also called as "Queen of Satpura". It is situated in Madhya Pradesh State of India. It has a place of eminence in the Scouting and

Guiding Movement too as it houses the National Training Centre-a temple of learning for the trainees.

Training Programmes: The Training Centre conducts several Training Courses all round the year. Courses for Leader Trainers, Assistant Leader Trainers, Pre Assistant Leader Trainers, Himalaya Wood Badge Courses, Reorientation Courses for Trainers, Courses for Commissioners, specialized courses and workshops are conducted.

The triennial meet of trainers: "Sandhan" is held here. Large usual gathering of Rovers and Rangers –"Samagam" and standard Judging Competitions are also held. The centre is equipped with competent members of the Training Staff who are functioning under the leadership of the Deputy Directors of Training of both the wings i.e., Scouts and Guides respectively.

National Adventure Institute: In order to offer more opportunities to young people, not only to the members of BS G, but also to the young non-members, BSG started the National Adventure Institute in 1992. The then National Commissioner, Shri V.P. Deendayalu Naidu laid the Foundation Stone.

This has opened avenues to youth to enjoy nature through adventure activities, living in the open air, trekking, rock climbing, night scouting, etc. This Institute is growing day by day in strength and popularity. It has now been brought on the tourist map of the Tourism Departments of Madhya Pradesh Government.

Youth from all corners of the country has been exposed to the activities. Thousands of Youths have so far participated in adventure Programmes. This Institute celebrates its anniversary on 9th May. SAARC (South Asia Association for Regional Co-operation comprising of countries India, Pakistan, Sri Lanka, Nepal, Bhutan, Bangladesh, Maldives) Adventure Programme was conducted in Nov. - 1997, and other International Adventure Programme took place in February 2000. Many other International events are being organized. Many countries have been taking keen interest in this National Adventure institute programmes.

Rationale of the visit: In the various conferences and workshops in the recent past, there was an increasing felt need for incorporating various groups into the NGO network and consolidating the existing ones. This was highlighted prominently in all the regional workshops on "Annotated Bibliography" for sustaining iodine deficiency disorders elimination Programme. Consistent recommendations were made on the role of civil society. It could be testified from later experiences that a Programme like IDDE, mostly planned and implemented by public health professionals can be effectively supported by other systems of network. In order to do this ICCIDD entered into partnership with the Bharat Scouts and Guides with a national networking of students, numbering four million approximately.

By regular interaction with BSG, the message is spread far and wide through school children as also BSG officials. The present Director Mr. D. L. Sharma is an enthusiastic promoter of this collaborative programme. He sees it as a great opportunity for both ICCIDD and BSG to contribute together to the national development.

Dates of visit: 8th June 2003 to 12th June 2003.

Journey: The team traveled to Bhopal from New Delhi by Shatabdi express and from Bhopal to Pachmarhi by taxi. The journey from New Delhi to Bhopal was for eight hours and the journey from Bhopal to Pachmarhi was for five hours. Same route and mode of transport was used for the return journey.

Programme: The team from the ICCIDD was scheduled to interact with the members of the Bharat Scouts and Guides attending the following four camps during the period of visit to Pachmarhi, Madhya Pradesh.

Camps of BSG at National Training Centre

S.No.	Camp	Dates
1.	The course for Assistant Leader Trainers (ALT) scouts	1 st June 2003 to 9 th June 2003.
2.	National Adventure Programme	1 st June,2003 to 10 th June 2003
3.	Course for Assistant Leader Trainers(ALT) Guides	8 th June 2003 to 14 th June 2003
4.	Rover /Ranger Samagam	10 th June 2003 to 15 th June 2003

The participants:

The participants included the Joint Director (Scouts), Deputy Directors of the National Training Center, Pachmarhi, and their staff, Deputy Director of the National Adventure Institute, Pachmarhi, and their staff. The ALT camps were held for the teachers/ Scoutmasters from various parts of the country. The scouts and guides (Age group 10-16yrs) and their teachers attended the Adventure programme. Rovers and Rangers (Age group 16-25 yrs) attended the Samagam. The interactive sessions were separate for all the different camps.

Number of participants in several Camps of BSG

S. No.	Camp	No. of participants
1.	Assistant Leader Trainers ,ALT (Scouts)	29
2.	National Adventure Programme	265
3.	Assistant Leader Trainers ,ALT (Guides)	22
4.	Rovers / Rangers Samagam.	229
5.	Total	545

The **Module of Interaction** included:

- 1) A brief Introduction of the ICCIDD and the team.
- 2) Screening of the film "Trishna" on Iodine Deficiency Disorders in India.
- 3) Over Head Projector presentation highlighting the important aspects of IDD and the role Bharat Scouts and Guides can play in the campaign against Iodine Deficiency Disorders in India.
- 4) Demonstrations of Iodine content of salt by salt testing Kits.
- 5) Question and answer session on the aspects discussed.
- 6) Exhibition of books and posters on Iodine deficiency disorders.

The Outcome:

The participants attended all the interactive sessions enthusiastically. At the end of the session all the participants appeared convinced regarding the spectrum of IDD and the importance of consumption of adequately iodized salt. They all pledged to spread the awareness and participate whole-heartedly in the campaign against IDD in the society.

Discussion with Mr. J. Sukumara , the then Joint Director of Scouts.

The Joint director called on the team and discussed on the aspect of involvement of the Bharat Scouts and Guides on a large scale in the elimination of Iodine Deficiency and monitoring of the salt iodine content. He proposed to introduce proficiency badge on Iodine Deficiency Disorders elimination into the curriculum of the Scouts and Guides. This according to him will ensure the participation of the Scouts and Guides energetically through out the country.

In the introduction of "Proficiency badge" the role of ICCIDD would be to prepare a syllabus that is objective, achievable and which can be evaluated.

In order to do this the ICCIDD should:

1. Recommend the symbol of the badge.
2. Print booklets of about 1 to 2 pages on the syllabus and the activities to earn the badge.
3. Devise an evaluation procedure.
4. Train the teachers who will then be able to guide their students to earn the badge.
5. Train the examiners for the evaluation of the badge examination.
6. Should supply the materials and equipment for the activities recommended in the syllabus.

The Scouts and Guides administration will-

- 1) Allow ICCIDD to participate in all the camps involving teachers and badge examiners for their training.
- 2) Will prepare and provide badges.

Recommendations-

- 1) Strengthen the partnership with the Bharat Scouts and Guides by participating in their camps in future.
- 2) 2) Consider the feasibility of introduction and support of the proficiency badge.
- 3) Supply student specific IEC material through BSG.

9.17 Training of Teachers, New Delhi, 7th October, 2003

Iodine Deficiency Disorders (IDD) Awareness 2003 - ICCIDD and Bharat Scouts and Guides jointly organized a one day programme on Tuesday 7th October 2003 in collaboration with Salt Commissioner Government of India, Centre for Community Medicine (CCM), All India Institute of Medical Sciences, The Pathfinders, UNICEF and the Micronutrient Initiative. The theme was “Iodine Deficiency Disorders (IDD) Awareness – 2003”. Scout Masters and Guide Captains (Teachers), numbering about 100, from all over Delhi attended the programme. The inaugural session had eminent speakers from different organizations who shared their experiences in iodine deficiency disorders elimination programmes. The components of this were broadly:

- Training of about 100 Teachers (Scout Masters and Guide Captains) on Tuesday, the 7th October, 2003.
- Salt sample testing from 8th to 18th October and report compilation.
- Compilation of report on 20th October, 2003.
- Media-exposure

The thrust of all these activities was to create mass awareness about iodine deficiency disorders and the importance of using iodised salt as well as muster support of policy leaders for a cause of national importance.

Venue: National Headquarters Bharat Scouts and Guides
Lakshmi Mazumdar Bhawan, 16, Mahatma Gandhi Marg
I.P.Estate, New Delhi

Date: Tuesday, the 7th October, 2003

The inaugural session started with the Scouts’ prayer. This was followed by the welcome address and theme setting by Dr. Chandrakant S. Pandav. Dr. Pandav introduced the Chief Patron of ICCIDD – Shri Mohan Dharia, former Deputy Chairman, Planning Commission, Government of India and a respected personality in both political and social services circles. Dr. Pandav paid homage to late Prof. V.Ramalingaswami known as father of iodine deficiency disorders elimination programmes (IDDE) in India and recalled his contributions and the tutelage he had under him right from early days as a student of medicine. He also highlighted the crucial role of each dignitary and institutional representative present there towards the success of the programme.

DL Sharma- Director, BSG enthusiastically welcomed the audience as a group who showed zeal to do something concrete for the country by contributing towards sustainable elimination of iodine deficiency disorders. He recalled that when few years back ICCIDD initiated dialogue with BSG, there were doubts about the whole programme. These were cleared in the successive interactions with ICCIDD officials. He recalled the various programmes in which ICCIDD participated, especially at Pachmarhi, and at Raipur where more than 1400 tribal children from different parts of the country participated. Awareness was brought about through literature, slides, and presentations for three whole days. It was then that BSG decided to put this as the national project and associate in a larger way to bring awareness at grassroots level. He spoke to the audience about what is iodine, what are the consequences of iodine deficiency, how is it available, what is its role in brain development etc., how IDD is affecting people and in turn its effects on the growth and development of the youth of the country and how the programme schedule of the day would help to educate the BSG units and other members of Bharat Scouts and Guides.

S. Sundaresan, Salt commissioner, enunciated that salt has universal applicability. It is also called the fifth element. It is not merely a commodity. It has vast industrial applicability. Decades earlier the British suppressed production of salt and levied duty in India and imported salt to the country. Today India is ranking third in the production of salt in world. Salt is produced in coastal districts of Gujarat, Tamil Nadu, and also in the interiors of Rajasthan. He stated that distribution is as important as production. So the job of Salt Commissioner is to monitor production of salt and iodised salt conforming to standards as well as ensure availability everywhere. The capacity for production and iodization of salt is adequate. The country has all other resources required for the production of salt such as raw materials, iodizing chemical, and transportation infrastructure – both rail and road. Bharat Scouts and Guides are one of the important stakeholders to achieve sustainable elimination of IDD, he pointed out.

Prof. M G Karmarkar talked about how the IDD elimination programme has passed through different stages and difficulties encountered in its implementation even though it is being implemented in the country for over 40 years. He requested the BSG to reach out at the grassroots level to educate the people about the negative consequences of IDD. He recalled the importance that salt has had in our country during the freedom struggle. Today we are using salt to prevent mental retardation as it is important to understand that we are focusing on prevention than cure. If adequate amount of iodine were not taken during pregnancy, it would result in irreparable damage. If one starts consuming iodized salt it will help in preventing many of these disorders in future life. He explained that ‘Goitre’ is only the ‘tip of iceberg’. There many more serious forms of disorders attributable to iodine deficiency. It is very important that we make sure supply of adequately iodized salt to pregnant women and children. Therefore, it is necessary to have the universal programme.

Universal salt iodization is very important for us. Teachers are effective communicators of this message. Teachers educate children and children in turn take this knowledge to their homes. He explained how training on practical tests conducted during the day for the teachers would help them to take it to the school environment and over a period of next 10 days to collect back the salt samples. Various types of salt are there e.g. refined, packed, loose, crushed, crystal, rock salt. Consumers look for iodized salt in cities. He stated that when people hear of iodized salt what comes to their mind is refined, packed, expensive salt. This is a wrong perception. In fact, salt can be iodized in various forms. He elaborated that people

think that iodized salt is costly and unaffordable. So it is very important to communicate that any form of salt, which is adequately iodized, can be consumed. These simple messages are very important. He recalled the question that people often raise on, ‘Why salt as a vehicle for iodine?’ It is because this is only one commodity, which is taken by old and young, rich and poor, in every part of the country. It is consumed in a fixed quantity every day. He concluded saying that it is possible to reach everyone in our country with this message – “Iodine is one element, which has to be taken in the right amount everyday”.

Dr. Eric Alain Ategbro, Project Officer, Nutrition, UNICEF-India shared the role of UNICEF first in India and in global movement. Way back in 1956, UNICEF contributed the first iodized plant located in Sambhar Lake, Rajasthan. He pointed out that even though technology is available, and it is simple, cheap and safe, it should be utilized judiciously. He reiterated that UNICEF is privileged to be a part of this important programme and that we should not look back but forward. He recalled the motto of Scouts and Guides is to protect the weak. He emphasized the need to give message to school children to consume iodized salt and to spread the message. Joint efforts should be made to work for the elimination of IDD. UNICEF supports all programs of this kind as it ensures the rights of our children. He concluded saying that it is our duty to help India for a brighter future.

Dr. R. Sankar, National Programme Officer of the Micronutrient Initiative, addressed the audience about the issue of IDD elimination and its sustenance. He said that Micronutrient Initiative (MI) was set up to accelerate progress of sustaining elimination of iodine, iron and vitamin A. He emphasized that school is a platform where teachers educate the children and children educate their parents. Thus it is a powerful medium and has great potential. Through, Scouts and Guides we can reach successfully at the grassroots level. He explained that MI is happy and privileged to collaborate with ICCIDD and BSG.

Mr. Mohan Dharia, in his Presidential address, emphasized the importance to defeat all the deficiencies in the country - illiteracy, poverty, malnutrition and make the nation free from wants. If we work hard, with determination then we can achieve the goal of eliminating iodine deficiency disorders. He quoted the example of Kerala achieving 100% literacy rate. He emphasized that collaboration needs to be signed by children with love, sacrifice and it is only then that sustaining any programme, especially that concerns children, is possible. He expressed as to how proud he was of the associations and the activities carried out by them in programmes like afforestation, environmental protection campaigns and many such. He also shared his earlier doubts about the IDDE programme and now that it has been cleared, and the societal benefits understood, he assured his support for the same. He also shared that in his over seventy years of public life, it is the first time he accepted patronage of any organization.

Shri Mohan Dharia released the “20 Questions on IDD” in Hindi, which contains the general queries and information relating to iodine deficiency disorders.

Mr. L. M. Jain, National Commissioner, Bharat Scouts and Guides (BSG), in his inaugural address shared the privilege of supporting the government programme and serving the people through BSG. Mr. Jain restated that BSG is happy in collaborating with ICCIDD for elimination of Iodine Deficiency Disorders. It is something for the good of the entire people of the country. He recalled that he first learnt about IDD in Chandigarh, which falls, in sub-Himalayan terrain, in 1960 when the iodized salt started appearing in the market. He said that the success of the programme and the various challenges give us a feeling of involvement in a good public interest programme. He referred to Mr. Sunderesan’s talk earlier when he said

that the resources are there and it is possible to provide iodized salt to the whole population of the country. He pointed out some of the problems being faced by small scale manufacturers. He also shared the misplaced view of some sections of the people who think that any salt is good. It is in these places that the BSG plays an important role. It is our duty to make them understand in a non-aggressive, persuasive manner. We want to spread this message to all. He emphasized that at the end of the day, participants should give a feedback of whether they are convinced or not. The aim is to bring about awareness in all parts of the country and we should be able to lend a strong helping hand. Mr. Jain hoped that as a result of the collaboration between the ICCIDD and BSG, continued interactions between the groups will make the programme a success.

Dr. Chandrakant S. Pandav submitted the admission form for Fellowship of Bharat Scouts and Guides to the National Commissioner. While seeking admission, Dr. Pandav recalled with nostalgia his days as a pupil at the National Model School, Aga Khan Palace in Pune, he was a Sea-Scout for many years. It was while imprisoned at Aga Khan Palace that Mahatma Gandhi gave the call in 1942 for 'Quit India'. While at sea during these occasions, Dr. Pandav remembered Mahatma Gandhi's final call for freedom by picking up a fistful of salt from the beach of Kutch in Gujarat. Dr. Pandav highlighted the present scenario by stating that today instead of salt we say iodized salt. As salt gave freedom, iodized salt gives freedom from mental retardation.

The Technical session followed the inaugural session. In this session, the teachers were divided into two groups. All the teachers were given a set of 50 forms (retail shop), salt testing kit of 20 each, ten sets of '20 Questions' and a time table card with appropriate messages for each student. Prof. Karmarkar explained to the teachers about the form and the use of salt testing kits. Modalities for collection of salt samples from households and retailers were explained as also how to guide the children in this exercise. In these sessions the teachers actively participated and clarified various doubts regarding salt testing kit, forms etc. Information, Education and Communications (IEC) material were displayed and distributed.

Mr. K. Sukumara, Joint Commissioner, Bharat Scouts and Guides, who resourcefully coordinated all the activities at the BSG Headquarters, concluded the programme by expressing hope this association would help in the elimination of iodine deficiency disorders.

Mrs. Saroja P, Joint Commissioner (Guides) extended helping hand wherever and whenever needed especially the hospitality and comforts of the participants. All Members of the ICCIDD team and professionals and staff of Bharat Scouts and Guides were actively involved in the conduct of the programme.

9.17 Compilation of Results, 20th October, 2003

Component: Compilation of Results of Salt Testing and Experience Sharing by Teachers and Students

Venue: National Headquarters, Bharat Scouts and Guides, I.P.Estate, New Delhi

Date: Monday, the 20th October, 2003

Background:

As a prelude to Global IDD Day observance on the 21st October 2003, a joint programme was organized by BSG and ICCIDD on Tuesday, the 7th October 2003 at the National Headquarters of BSG in New Delhi

Compilation of report:

Large numbers of teachers who had participated in the training and orientation programme of 7th October, 2003 assembled at the National Headquarters of BSG on 20th October, 2003. They brought with them test results of more 50000 samples. These samples were tested from 8th to 18th October, 2003. The details of samples collected is given in annexure 5.

The Survey conducted in Delhi included a total of 36 Schools in which 6,089 students participated. Total 55,096 salt samples were tested. Among these salt samples 47,753 (87%) were tested positive in iodine content and 7,343 (13%) were tested negative for iodine content.

Table-14, Salient Features of Survey Conducted By BSG in Delhi

S.No.	Particulars	Number
1.	No of participating schools	36
2.	No of participating students	6089
3.	Total number of salt samples tested (by salt testing kit)	55096 (100%)
4.	No of salt samples with Iodine	47753 (87%)
5.	No of salt samples without Iodine	7343 (13%)

Experience of Teachers and Students who went to test salt samples:

- 1) In certain parts of Delhi, one specific brand of iodised salt is being used even though other brands were also available. Since this brand showed presence of iodine in all samples tested, some teachers felt that they in indirectly popularizing this particular brand.
- 2) Students who went to test salt samples faced certain problems. Some shopkeepers questioned whether they are authorized to do this testing and if so who authorized them? Certain shopkeepers went to the extent of telling them to mind their own business.
- 3) Some shopkeepers were not willing to give samples of salt from packed salt packets as they felt that once the packet is open, they would not be able to sell that packet.
- 4) Some interesting experiences were observed amongst slum dwellers. When advantages of using iodised salt were explained to womenfolk and the salt tested from their household showed no iodine, these women immediately threw the salt stocks and purchased new salt, which showed presence of iodine.

- 5) Poor families purchased non-iodised salt for economic reasons.
- 6) Spurious products, fake packing, and surrogate selling of salt were evident.
- 7) Some families asked about other sources of iodine in natural form, e.g. seafood. These areas require proper educational and awareness programmes.
- 8) Since this was BSG coordinated programme, school managements were not directly involved. While there was support and encouragement, some Principals wanted more share and involvement for better coordination.
- 9) Children and teachers wanted some incentives, e.g. “certificate of participation.”
- 10) Teachers wanted the Principals to be told about their involvement as well as to be asked to support for continued work.
- 11) In many cases, samples were to be purchased. Reimbursing cost thereof would encourage increased participation in future.
- 12) This one exercise has created and/or increased awareness and understanding of the programme among not only the pupils and educators, but also the public, especially the slum-dwellers.
- 13) Children’s involvement motivated parents.
- 14) Participants want to continue it as an ongoing programme in collaboration with and support of ICCIDD & BSG.
- 15) In spite of constraints like teachers involvement in election related duties, children’s half-yearly examinations, spread of dengue and festival season, the programme was a success and should continue.

From *The Hindu, New Delhi Edition dated 21st Oct .2003.*

Iodine watch

If your child does not perform well in the Board examinations next March, don't always blame it on the poor thing. It could be just that he or she is unable to attain the full potential due to several reasons, not the least of which could be iodine deficiency.

Yes, indeed! Iodine deficiency adversely affects the learning abilities of children causing repeated failures and school dropouts thereby denying them the opportunity to perform well. And in fact, it deprives the country of the fully developed human resource, essential for development and modernization.

About 100 teachers from Delhi schools were recently trained on various aspects of iodine deficiency disorders, including field testing of iodised salt as also orientation for *information dissemination on related issues. The thrust was to highlight and create mass awareness on the multiple fallouts arising out of iodine deficiency disorders.

9.18 IDD Day Celebrations on 21st October, 2003

At a meeting with the National Commissioner and other professionals on 28th July, 2003, it was decided to have well spread programmes. These would include Training of Scout Masters and Guide Captains, Testing one lakh salt samples by children, a scientific session on 20th October, 2003 and meeting of children with the President of India on the 21st October. At this meeting it was decided that ICCIDD will participate in selected programmes, in all 18, being organized by the Bharat Scouts and Guides from June 2003 to April, 2004 at various parts of the country. These programmes will be held on a partnership basis.

It could be summarized that the collaboration between Indian Coalition for Control of Iodine Deficiency Disorders (ICCIDD) and Bharat Scouts and Guides (BSG) is a quotable example of partnership playing key role in the sustainability of a programme of national interest.

Chapter X

ICCIDD Collaboration with Scouts and Guides of Thailand , Kenya and Nepal

10.1 Thailand

The 20th World Scout Jamboree 2003 was organized at Bangkok from 27th December 2002 to 7th January 2003. Participants from 154 countries attended the camps. The theme is “Share our world, Share our Cultures: The objectives of the Jamboree was to offer opportunities for young people to grow in all dimensions : “physically, intellectually, emotionally, socially and spiritually”. One of the modules during the camp was Global Development Village (GDV), which designed to offer a day of activities related to global issues facing today’s world. One of the themes is “Health” Under health there are five workshops, viz., Feeding the World, Listening to the Harmony Inside, Fighting the Youth Killers, Join a Health Campaign, and Your Body and My Body. There was another module entitled “Community Action Day”.

Dr. Sangsom Sinawat, an ICCIDD Director, organized a booth at the 20th World Scout Jamboree in December 2002 in Bangkok, Thailand to introduce the young attendees to IDD and iodised salt.

10.2 Kenya

In early 2002, Ms. Judith Mutamba, Sub-regional coordinator for Eastern and Southern Africa, met with UNICEF and the leaders of Kenya Scouts Association. An IDD Day took place in the Scouts Training Camp in Nairobi in October 2002 with processions, newspaper messages, speakers, an interactive TV programme and a workshop. ICCIDD sees this collaboration with National Youth Groups as a promising means for promoting elimination of Iodine Deficiency through the use of Iodised salt, and most importantly, sustaining it thereafter.

10.3 Nepal Visit by ICCIDD Team-22nd to 26th May,2003

Report of the Kathmandu, Nepal Visit by ICCIDD Team

Having experienced success in carrying out the programme through civil networking groups along side public health professionals – which is already strong and sustaining – it was considered to introduce the concept to other countries of the region. Accordingly, ICCIDD discussed the possibilities of collaboration with Nepal Scouts and Guides with the national collaborator, the Bharat Scouts and Guides. The Director of Bharat Scouts and Guides took initiative to introduce the team as well as the experience of partnership in the area of IDDE programmes to the Nepal counterparts. At around the same time, interest was noticed from a voluntary group in Nepal.

Nepal Scouts and Guides met Mr. R.P. Pandey , International Commissioner and Mr. Valli, National Secretary at the Headquarters at Lainchour, Kathmandu. They were quite enthusiastic to know about the ICCIDD and BSG collaboration on such important programme.. They were keen to learn more about the problems and preventive measures and that how the Scouts and Guides can play lead roles.

Their group keeps coming to India for various programmers of Bharat Scouts and Guides, especially at the training centre at Pachmarhi. Nepal Scouts and Guides are willing to work with ICCIDD. One suggestion from them was that of holding a session during the visits of their team to the Bharat Scouts and Guides headquarters.

Samples of posters and other samples of IEC materials like school time table, name slips and salt testing kit supplied to Bharat Scouts and Guides by the ICCIDD were given to them. They promised to prominently exhibit these at the Headquarters.

Chapter XI

Coverage of Events in Bharat Scouts & Guides Newsletter:

The Bharat Scouts and Guides Newsletter - October 2003, Page 11

Iodine Deficiency

As a part of the Partnership Programme of Bharat Scouts and Guides with International Council for Control of Iodine Deficiency Disorders (ICCIDD) Training and

Re-orientation was conducted at Scout/Guide Unit leaders of Local States of Delhi area on 07/10/2003 at National Headquarters of Bharat Scouts and Guides. About 75 Unit Leaders of Delhi Northern Railway, KVS* and NVS** attended the training. The function was inaugurated by Shri. L.M. Jain, National Commissioner of Bharat Scouts and Guides. Shri Mohan Dharia, Chief Patron, ICCIDD, former Deputy Chairman Planning Commission, Govt. of India, was the Chief Guest. Dr. S. Sudaresan, Salt Commissioner, Dr. Eric Alain Ategbo from UNICEF, Dr. R. Sankar from M.I., Dr. Chandrakant S. Pandav, Prof. M.G. Karmarkar of ICCIDD and Shri D.L. Sharma, Director, Bharat Scouts and Guides addressed the participants. Training was given by the ICCIDD Team led by Dr. Denish Moorthy. K. Sukumara, Joint Director, Bharat Scouts and Guides welcomed the guests and participants. Vote of thanks was rendered by Mr. Peter Parekattil of ICCIDD. The participants were given a practical assignment of which report will be submitted on 20/10/2003 at 03:00 pm at National Headquarters.

*Kendriya Vidyalaya Sangathan

**Navodaya Vidyalaya Sangathan

The Bharat Scouts & Guides Newsletter, October 2003

One More BSG Fellow: Dr. Chandrakant S. Pandav, MD, MSc, FNAMS

Dr. Chandrakant S. Pandav is a faculty member at the Centre for Community Medicine, All India Institute of Medical Sciences (AIIMS), New Delhi, India. He is a Physician, Medical Scientist, Public Health Specialist, Epidemiologist and Health Economist. Dr. Pandav completed both his graduation (MBBS) and post-graduation (MD; Community Medicine) from All India Institute of Medical Sciences, New Delhi. Dr. Pandav has to his credit over 200 publications and presentations in reputed national and international journals and in various conferences. He has also co-edited nine books on health sciences and health economics, published by the Oxford University Press, India. He has also received many national and international awards, the most significant being Dr. M.K. Sheshadri Prize and Gold Medal for the year 2000 conferred by the Indian Council of Medical Research (ICMR).

Dr. Pandav has been a sea scout during his school days. His association with Bharat Scouts & Guides is summarized in his own words.

A former Sea Scout's Ruminations: A Personal Perspective

As a pupil at the National Model School, Agha Khan Palace, in Pune City in the Maharashtra State in the early sixties, I have been a sea scout for many years. (It was while imprisoned at Agha Khan Palace that Mahatma Gandhi gave the call in 1942 for Quit India.) In point of fact, "Once a Scout always a Scout." We often had to attend various adventure programmes associated with seas. While at sea during these occasions and later at the beach, I often remember Mahatma Gandhi's final call for freedom by picking up a fistful of humble salt from the beach of Kutch in Gujarat. In a strange process of evolution, the sea (because of its bounty of salt), the scouts and guides movement and my vocation have come to a conjoining point – "Being in" for a call to freedom from IDD. Gandhiji called for quit India. For me it is an inspiration for a united call to 'Eliminate IDD forever'. It may be relevant to remember the words of Baden Powell, the founder of Scouts and Guides Movement "A Scout does everything he can to help others, especially children and old people. He does at least one good turn a day". Doing something for children is a commitment. It comes in full measures by helping him or her to attain the optimum physical and mental potential. In case of with International Council for Control of Iodine Deficiency Disorders (ICCIDD), it is by ensuring that they get iodine optimally from womb to tomb.

Dr. Chandrakant S. Pandav

Faculty Member, Centre For Community Medicine,

All India Institute of Medical Sciences, New Delhi and

Secretary, Indian Coalition for Control of Iodine Deficiency Disorders (ICCIDD)

ANNEXURES

Annexure- 1

1. Letter written to the Director, BSG

27th May 1997

To
The Director
Bharat Scouts & Guides
16, M.G. Marg
I.P. Estate
New Delhi – 110 002

Subject: Collecting information on Iodine Deficiency Disorders at district level

Sir,

We would like to introduce our self as a team from All India Institute of Medical Sciences who have been active in the field of Iodine Deficiency Disorders and its elimination.

Iodine Deficiency Disorders (IDD) is a major public health problem in India. Studies conducted over the last 15 years by the Ministry of Health and Family Welfare, Govt. of India and Centre for Community Medicine, A.I.I.M.S, New Delhi, and other agencies have highlighted the problem of IDD in India. The prevalence of goiter has varied between 13% to 75%.

The single most important cause of mental handicap in the world is iodine deficiency. It has also been proved the world over that children living in areas deficient in iodine have Intelligence Quotient (IQ) scores of up to 13 points less than those of children receiving adequate iodine. This can be very crucial in the formative years of schooling. Iodine deficiency in childhood can lead to mental retardation, delayed motor development, stunted growth, muscular disorders, paralysis, hearing, and speech defects. These disorders interfere with development of the child. And yet, all this is totally preventable.

Globally as well as in India, salt has proved to be the most effective medium of iodine supplementation. Since we universally consume salt in small fixed amounts daily, it is an ideal vehicle to deliver required doses of iodine to the population at large. Also, salt is one of the few commodities consumed by a cross section of people regardless of economic level. Since iodine deficiency is due to environmental factors (iodine leached away from soil by glaciations, frequent flooding etc.) iodine supplementation has to continue life long.

Government of India launched the National Goitre Control programme which was renamed as National IDD Control programme in 1992. Under this programme, it is envisaged to supply iodised salt to the whole country. The target was to achieve Universal Iodisation of Salt (USI) in India by 1995 so as to eliminate IDD by the year 2000. Monitoring is a vital part of the effort to eliminate IDD. If the iodine content of salt at the consumer's end is not monitored, then there could be a recurrence of IDD. We seek your cooperation in this endeavor to eliminate IDD.

We are in the process of collecting data on availability and use of iodised salt with the help of NGOs. We request that you recommend two NGOs from your district, one each from rural and urban area, who will assist us in collecting this information on an on going basis. As per your recommendation, we will then contact the specified NGOs. However, a letter from you to NGOs will provide encouragement to them.

Once the information is collected we plan to publish these results as a Citizens' Report. We will be happy to send you a copy of the same. Once again we seek your co-operation in this regard.

Thanking you in anticipation

Yours sincerely,

Dr. K. Anand

Asst. Professor

Centre for Community Medicine

All India Institute of Medical Sciences

New Delhi – 110 029

Mrs. Saroja Narayanan

Project Officer (ICCIDD)

Centre for Community Medicine

All India Institute of Medical Sciences

New Delhi – 110 029

Dr. Chandrakant S. Pandav

Additional Professor

Centre for Community Medicine

All India Institute of Medical Sciences

New Delhi – 110 029

WHAT DO WE WANT FROM YOU?

1. Collect samples of salt from 10 shops in the area where you are working.
2. If more than one type of salt, (not brand but in terms of packed / loose or powder / big crystals – see Performa for shops,) take a sample of each.
3. Use the kit provided to test for iodine content of salt.
4. Fill the polythene packet and send them to ICCIDD Lab at Delhi in the pre-paid envelop provided.

PRE-PAID ENVELOPS

The pre-paid envelop is being provided to you so that the samples can be sent to us conveniently. Do not put more than 4 packet of salt per envelop.

HOW TO USE THE KIT?

1. Take one tea spoon of salt on a white paper.
2. Add a drop of the test solution on it.
3. Wait for 30 seconds.
4. Read the answer only as Yes / No.

5. It is yes, if the colour of the salt turns violet of any shade.
It is no, if there is no change in colour.

CHECK LIST

Pre-paid envelopes = 10
Zip lock polythene bag = 40 bags
Spot testing kit = 1
Proforma = 10

50 Years of Independence: Month of Mahatma Gandhi's Birthday

Iodine Content of Salt in Retail Shops

Name of NGO :
Name of Village / Town :
Name of Shop :
District :
State :
How long do you keep the salt (Stock):

Please Complete this Table-

S. No	Type of Salt	Availability (Yes / No)	Label			Price/ Kg (in Rs.)	Iodine Yes / No
			Yes/No	Name	Iodised or Not		
1.	Company Packed						
2.	Self Packed						
3.	Loose Salt: Kept in Box/ jute bags / other containers						
4.	Salt kept open on floor						
5.	Salt for animals						

If More than one variety of salt, please mention it.

Thank you for your kind co-operation

Annexure- 2

State- wise Annual Census of Scouts and Guides of BSG for the Year 2002- 2003

No.	States	Total No. of Scouts	Total No. of Guides	Grand Total
1	Andaman & Nicobar	2697	2276	4973
2	Andhra Pradesh	65568	35381	100949
3	Arunachal Pradesh	6035	5193	11228
4	Assam	7776	3427	11203
5	Bihar	26143	6921	33064
6	Central Railway*	14245	6030	20275
7	Chandigarh Union Territory	3337	3213	6550
8	Chattisgarh*	50000	36333	86333
9	Daman and Diu	34	66	100
10	Delhi	12131	8245	20376
11	Eastern Railway	12982	7254	20236
12	Goa*	8949	9365	18314
13	Gujarat	30267	19129	49396
14	Haryana	228372	132732	361104
15	Himachal Pradesh	13261	19202	32463
16	Jammu & Kashmir	6453	3574	10027
17	Jharkhand	5949	3098	9047
18	Karnataka	128460	76439	204899
19	Kendriya Vidyalaya Sangathan	73971	44879	118850
20	Kerala*	75837	88327	164164
21	Lakshadweep	0	0	0
22	Madhya Pradesh	375598	49056	424654
23	Maharashtra	528570	428304	956874
24	Manipur*	522	329	851
25	Meghalaya	2477	4946	7423
26	Mizoram	835	1281	2116
27	Nagaland	1313	1401	2714
28	Navodaya Vidyalaya Sangathan	12701	12279	24980
29	Northern Eastern Railway	13369	9864	23233
30	Northern Eastern Frontier Railway	4403	2242	6645
31	Northern Railway	19735	8958	28693
32	Orissa	9925	1462	11387
33	Pondichery	1408	927	2335
34	Punjab*	89410	42056	131466
35	Rajasthan	337454	61619	399073
36	Sikkim	271	310	581
37	South Central Railway	20076	15011	35087
38	South Eastern Railway	8273	5072	13345
39	Southern Railway	5642	3634	9276
40	Tamil Nadu	104224	46391	150615
41	Tripura	902	896	1798

42	Uttar Pradesh	45774	27356	73130
43	Uttaranchal	11073	3982	15055
44	West Bengal	15303	10078	25381
45	Western Railway	9954	4476	14430
46	Sultanate of Oman	2460	2274	4734
	Total	2394169	1255288	3649457

** Note: Census not received till the annual report is prepared. Hence last year census is incorporated*

Annexure- 3

State wise detailed report of the samples collected and their iodine content- **From BSG**

STATES	Iodine Content (ppm) Titration Method						Iodine Content (ppm) Kit Method				
	0	0-7	7-15	15-30	30+	Total	0-7	7-15	15-30	30 +	Total
Andaman & Nicobar	-	-	2	2	20	24	0	2	-	25	27
Andhra Pradesh	-	1	3	6	5	15	17	1	1	8	27
Haryana	-	-	-	-	-	-	32	16	17	51	116
Karnataka	-	-	-	-	-	-	3	-	1	2	6
Madhya Pradesh	1	2	8	5	20	36	9	14	7	30	60
Maharashtra	-	-	-	-	-	-	14	5	18	19	56
West Bengal	-	-	3	4	2	9	40	18	68	14	140
Bihar	-	-	-	-	-	-	40	13	17	14	84
Orissa	-	-	-	-	-	-	5	8	7	5	25
Chandigharh	-	-	-	-	-	-	6	5	2	8	21
TOTAL	1	3	16	17	47	84	166	82	138	176	562

Annexure- 4

State wise detailed report of the samples collected and their iodine content- **From NGOs**

STATES	Iodine Content (ppm) -Titration Method						Iodine Content (ppm)- Kit Method				
	0	0-7	7-15	15-30	30 +	Total	0	7	15	30 +	Total
Assam	1	19	72	43	32	167	51	150	106	187	494
Andhra Pradesh	-	-	-	-	-	-	16	9	14	15	54
Bihar	-	-	-	-	-	-	1	13	11	8	33
Delhi	11	19	44	45	38	157	8	25	29	95	157
Goa	1	1	-	1	4	7	7	5	-	3	15
Haryana	3	1	3	4	5	16	12	3	3	43	61
Himachal Pradesh	2	1	4	39	2	48	12	10	8	18	48
Karnataka	-	-	-	-	-	-	13	17	3	-	33
Madhya Pradesh	-	-	-	-	-	-	3	8	9	31	51
Maharashtra	7	1	11	1	11	31	30	6	1	31	68
Meghalaya	-	6	4	4	3	17	5	2	3	7	17
Orissa	10	4	1	6	18	39	4	10	6	16	36
Punjab	-	-	-	-	-	-	10	6	6	18	40
Sikkim	-	-	-	3	1	4	5	5	9	17	36
Tamil Nadu	2	18	7	4	8	39	22	2	4	11	39
Tripura	-	4	5	-	21	30	1	8	5	16	30
Uttar Pradesh	36	7	16	41	103	203	41	11	19	154	225
West Bengal	-	1	2	3	1	7	17	12	7	24	60
Andaman & Nicobar	-	-	4	7	4	15	1	1	6	13	21
Chandigarh	1	-	-	6	4	11	1	5	5	10	21
TOTAL	74	82	173	207	255	791	260	308	254	717	1539

Annexure- 5

Samples Tested With ICCIDD Salt Testing Kit in October 2003

S.No	Name of School	Area	No. of Students participated	Total No. Sample Collected	Sample with Iodine	Samples without Iodine
1.	Azad Rover Scout Group	West Vinod Nagar	560	5287	4838	449
2.	Govt. Boys S. Sec. School	Jafrabad	198	1980	1474	506
3.	Swarn Jayanti Scout Group	Gangotri Vihar	116	942	765	177
4.	Govt. Boys S. Sec. School	Gokul Pur	184	1840	1513	327
5.	D.A.V. Sr. Sec. School	Shankar Nagar	172	3367	2529	838
6.	Amity International School	Saket	102	960	519	441
7.	ASN Sr. Sec. School	Mayur Vihar	22	80	70	10
8.	Govt. Boys S. Sec. School	Mangolpuri	72	720	571	149
9.	Govt. Boys S. Sec. School	Geeta Colony	192	1920	1808	112
10.	S.S.Foundation School	Morna, Noida	174	679	553	126
11.	Sant Nirankari Boys S.S. School	Sant Nirankari Colony	202	2020	1762	258
12.	Govt. Girls Sr. Sec. School	Sriniwasपुरी	200	1842	1358	484
13.	Little Flowers Public Sr. Sec. School	Shivaji Park	143	2854	2788	66
14.	Harcourt Butler Senior Secondary School	Mandir Marg, New Delhi	60	600	571	29
15.	L.H.S. Sarvodya Vidyalaya	Gokhle Marg, Mori Gate Delhi-6	174	1723	1333	390
16.	Vipin Chandrapal Survodya Kanya Vidyalaya	Babarपुर, Shadara	402	4020	4020	0
17.	Bharat Scouts & Guides	Bharat Nagar, Ghaziabad	38	177	135	42
18.	Govt. Boys Sr Sec	Andrews Ganj	172	1720	1603	117

	School					
19.	Rana Pratap Sarvodaya Kanya Vidhyalaya	Rithala, Delhi – 85	160	1600	1560	40
20.	Rajkiya Varist Madhyamik Bal Vidhalaya, No. 2	Narela, Delhi	186	1859	1538	321
21.	Pragati Public School	Chander Nagar	30	280	280	0
22.	N.P. Primary School	Ashoka Hotel	196	266	236	30
23.	Govt. Boys Sr Sec School	New Kondli, Delhi - 96	378	3765	2991	774
24.	JMSV Sec 12	RK Puram	188	686	518	168
25.	NP Co-Edu. Sec School	Lodi Estate, New Delhi	200	1055	909	146
26.	Jose Matri Sarvodaya Vidhayalaya, Sec 12	RK Puram	166	215	200	15
27.	Northern Railway	Delhi	198	1980	1913	67
28.	Govt Co-Ed Sr Sec School	Rithala	70	690	477	213
29.	Jain Happy School	Sri Bhagat Singh Marg	88	763	740	23
30.	Govt Boys Bal Vidhyalaya	West Vinod Nagar	100	1000	977	23
31.	Little Flower Public School	Yamuna Vihar	150	667	479	188
32.	RSKV	Kalyan Puri	200	2000	1809	191
33.	Scouts Group	Delhi	114	1075	1033	42
34.	Metari Guide Group Govt. Co-ed. Middle School	Nand Nagari	100	698	663	35
35.	Govt. Co-ed. Middle School	Nand Nagari	202	2020	1583	437
36.	Rajkiya Sarvodaya Bal Vidhyalaya	West Vinod Nagar	180	1746	1637	109
		TOTAL	6089	55096	47753	7343

Salient Features of Survey Conducted By BSG in Delhi

S.No.	Particulars	Number
1.	No of participating schools	36
2.	No of participating students	6089
3.	Total number of salt samples tested (by salt testing kit)	55096 (100%)
4.	No of salt samples with Iodine	47753 (87%)
5.	No of salt samples without Iodine	7343 (13%)

Legacy of The Legend Science & Society



Prof. V. Ramalingaswami
8 August 1921 – 28 May 2001

- 1956 – Kangra Valley Project**
- 1962 – National Goitre Control Programme (NGCP)**
 - Area specific Salt Iodisation
- 1984 – Area specific to Universal Salt Iodisation (USI)**
- 1992 - Renaming of NGCP to National Iodine Deficiency Disorders Control Programme (NIDDCP)**
- 2000 – Withdrawal of the Ban**

(Back Cover)

Iodised Salt – The Solution to Eliminate Iodine Deficiency

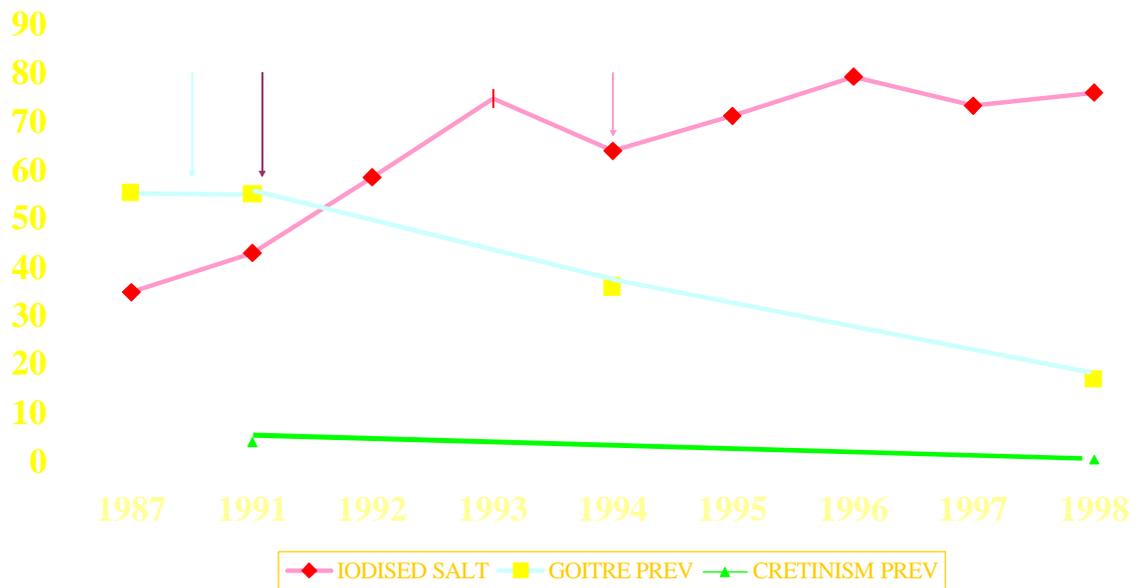


**Salt
Production &
Iodisation**



**Promotion of Iodised
Salt Consumption**

IDD is preventable – The Evidence



(Position in Chapter III)

IDD – The Hourglass

