

PROMOTING SALT IODISATION AMONG SMALL SALT PRODUCERS IN RAJASTHAN, INDIA

Authors:

*Deepti Gulati, Senior Nutritionist, U N World Food Programme, India and
Pankaj Jain, Regional Advisor, Salt Programs, Micronutrient Initiative, Asia*

A. BACKGROUND:

Iodine Deficiency Disorders (IDD) is the single most common cause of preventable mental retardation and brain damage in children the world. It decreases child survival, causes goiters, and impairs growth and development. IDD in pregnant women causes miscarriages, stillbirths, and other complications. Children with can grow up to be stunted, apathetic, mentally retarded, and incapable of normal speech, or hearing.

About 2 billion population of the world is at risk of iodine deficiency disorders, out of which more than 200 million are in India alone. Results of sample surveys conducted in 325 districts covering all the States/Union Territories have revealed that 263 districts are endemic where the prevalence of Iodine Deficiency Disorders is more than 10%. It is estimated that more than 71 million persons are suffering from goitre and other Iodine Deficiency Disorders¹. Of the 26 million children born in India each year, half are unprotected against iodine deficiency disorders. Thus Iodine Deficiency is a major public health problem in India.

Recognized as the “best solution” to eliminate IDD, Universal Salt Iodization (USI) is one of the most successful global public health strategies of the past two decades. Based on the costs and benefits of the solutions, Copenhagen Consensus 2008 has also identified salt iodization as one of the most cost effective of micronutrient interventions. .

B. SALT PRODUCTION IN INDIA

India with a vast coastline and an entirely tropical climate is naturally a salt producing country. With an annual production of 17.85 million metric tonnes, India is the third largest salt producing country in the world after USA and China. But only 3 of the 31 states are sizeable producers. Gujarat leads with 70 % of national production of salt for *human consumption*, followed by Tamil Nadu producing 15 % and Rajasthan 15%². These figures tend to vary somewhat from year depending on local weather / market conditions.

Rajasthan produces a total of 2.5 million MTs of salt annually using lake brine and sub-soil brine. Of this, 1.5 million MTs is for human consumption. The small salt producers in Rajasthan together produce about 88% of this amount, which is a staggering 1.32 million MTs.

¹ Source: National Portal of Government of India www.india.gov.in. (National Portal Content Management Team, Reviewed on: 31-03-2009)

² Annual Report 2008 Salt Department, Government of India

C. PROJECT GENESIS

Consumption of adequately iodized in India is just about 51%, with almost 24% of households consuming salt that is not iodized at all (NFHS-3).³ While there has been a substantial increase in the production and consumption of iodized salt in India since NFHS-3, there are still considerable gaps in the consumption of iodized salt at the community level. These gaps are mainly due to:

1. Low levels of awareness among the community about IDD and the need for consuming iodized salt; and
2. Leakage of raw / un-iodized / inadequately iodized salt from the salt farms of small salt producers into the markets that are accessed by poor and ignorant village communities.

Regular review of USI progress with respect to the iodized salt production in the country revealed that across the country, the small salt producers (SSP) contribute substantially to the production of salt. In addition, while capacities of SSPs to iodize salt are limited, the SSPs sell a substantial proportion of this un-iodized/inadequately iodized salt as iodized salt locally to millions of people⁴. This has a considerable negative impact on India's USI program as well as on the iodine nutrition of socially and economically vulnerable population.

Hence United Nations World Food Programme (WFP) and Micronutrient Initiative (MI) entered into a strategic partnership in 2006 to engage small salt producers in salt iodization. Considering that in Rajasthan, a sizeable salt production is by SSPs, selecting Rajasthan, as the area of choice for project implementation was self-evident.

This project uses an innovative approach to garner the untapped potential for iodizing salt produced by small salt producers (SSP) and help them to carve out new markets for their quality product while simultaneously providing vulnerable groups and remote populations with an access to adequately iodized salt at a competitive price.

D. AIM AND OBJECTIVES

With an aim to improve the availability and accessibility of quality iodized salt to the vulnerable sections of the Indian population, the objectives of this project were to:

1. Bring about an awareness in the community and create a demand for iodized salt, and
2. Build the capacity for salt iodization among small salt producers to produce adequately iodized salt on a sustainable basis.

³National family Health Survey 2005-06

⁴ Annual reports of Salt Department, Government of India

E. PROJECT LOCATION AND COVERAGE

Four districts of Rajasthan: Nagaur, Ajmer, Jodhpur and Jaisalmer are considered as the Salt-hub in the State of Rajasthan. There are approximately 950 SSPs in these districts whose individual annual salt production is about 3000 metric tons (MTs) or less. Of these about 350 SSPs, whose annual salt production was 1500 MTs or less, and had valid legal documents related to the ownership of salt-pans, are covered under the project.

The project has been implemented in a phased manner. Based on its demonstrated success, and its demand for replication by the SSPs in the other salt producing districts, it has now being replicated in the two other districts: Jodhpur and Jaisalmer.

The following table gives the phase-wise coverage and expansion of the project in Rajasthan:

Phase-wise Coverage and Production Of Iodized Salt				
Phase	Coverage	Timeline		Self Help Groups Formed
		Ground work	Initiation of Iodized salt production	
1 st Phase	Ten villages in Nagaur District	December 2006	August 2007	15
2 nd Phase	Three villages in Ajmer District	April 2008	August 200	5
3 rd Phase	12 village in Jodhpur District, 2 villages in Nagaur District, and 1 village in Jaisalmer District	October 2008	May 2009	15

It is expected that by June 2010, the project would have built the capacity of about 350 SSPs to annually produce 250,000 MTs of good quality adequately iodized salt that would make a positive impact on the health of about 50 million people in Rajasthan and the neighbouring states through its outreach.

F. PROJECT COMPONENTS:

The project was designed to bring together all the selected SSPs to form Self-Help Groups (SHGs) in order to build the economies of scale in iodized salt production. The main components of this project include:

- i. Forming Self-Help Groups with the SSPs
- ii. Providing machinery and equipment for salt processing and iodization
- iii. Providing potassium iodate (KIO₃) subsidy and ensuring its regular supply

- iv. Building the capacities of SHGs by and training them on machine operations, maintenance and iodization techniques so that they are able to produce adequately iodized salt
- v. Training the SHGs on quality control and assurance
- vi. Supporting the SHGs to improve their infrastructure and production capacity
- vii. Building their managerial capacities including group dynamics, inventory management and operating under established business practices
- viii. Federating them into an apex body and linking them with institutions dealing in micro-finance so that they can address their own credit and marketing needs
- ix. Developing marketing networks and institution building for the sale of adequately iodized salt produced by the SHGs in order to ensure project sustainability, and
- x. Creating a demand for adequately iodized salt at the community level through a targeted public awareness campaign so that all the households consume only the iodized salt

For effective project implementation, the SHGs would require on-going support and encouragement to sustain and augment their skills and confidence over the course of the project. Hence, the Centre for Community Economics and Development Consultants Society (CECOEDECON), a Rajasthan based organization, was selected as an implementing partner. This agency has a long experience in the development sector and specializes in Self-help Group formation and micro-finance.

Two Project Management Units are operating in the field through which CECOEDECON regularly trains and supports the SHGs in the production and marketing of adequately iodized salt.

In addition, MI has set up a quality control office, which has professionally qualified chemists and extenders who monitor the iodization levels and provide regular support and guidance to the SHGs.

G. PROJECT PLANNING AND CAPACITY BUILDING

In order to build a good partnership with the SSPs and develop a need-based project implementation plan, it was considered imperative to undertake a rapid appraisal which would provide an overview of the context: the salt industry situation, information on the functioning of salt industry and also assess their willingness to join the project as partners in development.

I. Participatory Rapid Appraisal for Assessing the Field Situation

A Participatory Rapid Appraisal (PRA) was conducted in all the villages prior to the development of the project implementation plan and was effectively used to collect critical information through well-designed semi-structured interviews. This helped to get comprehensive information and understanding of:

- i. The social and cultural milieu of the area
- ii. Ownership of salt farms
- iii. Needs and aspirations of small salt producers
- iv. Other factors that limit / support iodization of salt, including supply of electricity, rail / road links, quality of brine etc
- v. Needs and challenges of salt industry in the project area
- vi. Available marketing structures

Based on the outcome of the PRA and semi-structured interviews, a detailed reference Capital Investment Plan (CIP) was developed which included expected expenditure such as *raw material, packaging material, man power, utilities, cost of land and building, depreciation cost, sinking fund reserve, selling and distribution expenses, transportation cost, loan delinquency, miscellaneous expenses etc.*

The PRA exercise was followed by conducting Focus Group Discussions (FGDs), in all the villages, to inform the community and the salt producers about the proposed project, clarify their doubts and apprehensions, win their confidence, solicit their views and their expectations from the project, assess their willingness to form groups as associated partners who would support and contribute towards project implementation.

This CIP prepared as one of the outcomes of PRA, was discussed in details during the FGDs. These discussions helped the SSPs to realistically estimate the cost of processing and producing adequately iodized salt and the profit that would be accrued, if it were marketed collectively by forming the Self-Help Groups (SHGs).

The appraisal and analysis of this information from the PRA and FGDs enabled the project partners - WFP, MI, CECOEDECON and the SSPs - to arrive at the criteria for identifying and enlisting the small salt producers and make project implementation plans for providing the support that was needed to produce adequately iodize salt on a sustainable basis.

The CIP demonstrated the potential for profit from the collective production and marketing of iodized salt and was one of the key factors that motivated the salt producers to come together to avail the opportunities offered under the project.

II. Formation Of Self-Help Groups

Upon analyzing the information gathered through RRA and FGDs, one of the most challenging tasks was deciding on the criteria for the selection of small salt producers willing to form groups and work collectively, to avail the opportunities offered under the project and to contribute towards the USI initiative by producing good-quality and adequately-iodized salt.

Clear criteria, in terms of production capacity and salt-pan ownership, were discussed with the all the SSPs in the project area in a transparent and participatory manner to avoid misunderstandings at the community level and were agreed to in the beginning itself.

The selected SSPs were grouped into SHGs based on logistic convenience of carting salt from their respective salt farms and processing it at a common place and their interpersonal compatibility, which had a great bearing on their ability to come together and work as a cohesive group.

The salt industry is a male-dominated industry with very few women in the business of salt farming. All efforts were made to enroll the women salt producers as project participants; as a result, women salt producers comprised 27% of the SSPs.

Once the groups were formed, the members decided on the name of the group and the place from which they would like their unit to function. In addition, these members selected their office bearers: the President, the Secretary and the Treasurer; who would conduct the business and represent the group. Each group has a membership of 9 to 11 members.

In order to build in ownership and responsibility, all SSPs were encouraged to sign a "Tripartite Agreement" with WFP and MI on the maintenance and upkeep of the equipment provided to them for crushing and iodizing the salt. This agreement outlined the terms and conditions for providing and receiving support for salt iodization. This agreement also included a 10% contribution of the cost of the machine and the potassium iodate (KIO_3) by the SHG members, which formed the corpus fund that would be used by the group as working capital and would also make the group eligible to leverage this fund to secure bank loans. This corpus fund also aimed at facilitating internal borrowing and lending within the members to meet their urgent personal needs.

After the formation of SHGs it was essential to regularize their coming together and operating as one entity. Hence to begin with, a bank account in the name of each SSP-SHG group was opened and each member deposited Rs. 200/- (US\$ 4) as his or her contribution and membership fee. In addition, the members of each SHG collectively deposited their 10 % contribution towards the cost of the plant and cost of total KIO_3 to be received. This led to a good initial deposit of about Rs. 60,000/- (US\$ 1200) for each group.

This deposit initiated the process of internal lending and repayment amongst the members of SHGs as per their needs and ability to repay. Every SHG developed its own 'Guidelines on internal lending and repayment' at the time of SHG formation, through a democratic and consultative process. This system is getting streamlined and the members are operating within the group norms with responsibility. Each member has voluntarily increased its share of monthly contribution to the corpus fund from Rs. 200/- to Rs. 1000/- per month (from US\$ 4 to US\$ 20). This corpus is used as a revolving fund to meet the regular running expenses like machine maintenance, electricity, wages of the labour and other contingency.

The SSPs are encouraged to contribute higher amounts and are paid an agreed amount of interest on their share of contribution. There is a provision for loan loss on account of loan-repayment failure because of weather impact on salt harvest / delinquency etc. However, there have been no loan-repayment failures.

When delays in re-payments occur, they are discussed in the meetings of respective SHGs and a revised loan-repayment plan with higher interest is mutually agreed and in line with the loan-repayment guidelines devised by each SHG at the beginning of SHG formation.

III. Training And Capacity Building

CECOEDECON has the responsibility of organizing training for SHGs members on institutional building for collective action. Hence CECOEDECON developed and designed specific training modules to cover these distinct areas of training. The training module on institutional building broadly covered the topics like functions of SHGs, communication, maintenance of records and accounts of all the SSP-SHG transactions and group dynamics etc.

Each training session comprised two days of classroom session, followed by one-day of on-site, hands-on training on the use of crusher-cum salt iodization machine and techniques of proper iodization of salt.

Training on operating the crusher-cum salt iodization machine, process of salt crushing and iodization, maintenance of plant, packaging and quality control of salt was conducted by the Salt Department of Government of India and the MI team. This helped to sensitize and train the SSPs to ensure high compliance to national standards of monitoring etc.

This partnership with the Government not only reflects approval of this initiative but also a high level of support accorded to this project by the key stakeholder engaged in IDD elimination in India.

The capacity building from initial training onwards has now become a continuous process. Project implementation team – CECOEDECON and field-based MI staff, are always available to provide support for trouble-shooting and guidance whenever

required. Key components of training are regularly reinforced during SHG meetings, discussions and during on-site visits.

In addition, project coordinators of WFP and MI, micro-finance / marketing / communication consultants of CECOEDECON and the officials from the Salt Department, Government of India, regularly visit the project areas to provide external guidance and support for improve project implementation and problem solving.

IV. Production of Iodized salt

In order to process and produce good quality and adequately iodized salt, crusher-cum-iodization machines were distributed to each SHG. These machines were designed by MI and have a better technique of uniform mixing of iodine with salt and have an output of 32 MT (approximately) per day.

In line with the production capacity of the machines, 40 kg of KIO_3 is provided to each SHG per month so that they could produce up to 800MTs of iodized salt per month. In order to ensure regular supply of KIO_3 to the SHGs, CECOEDECON tracks the trend of KIO_3 utilization and forecasts KIO_3 requirements for the subsequent month so that the supply-chain logistics are maintained. Production of iodized salt was initiated soon after the installation of machines and distribution of first batch of KIO_3

V. Quality Control and Assurance

In order to ensure quality of iodized salt produced, a system of testing the iodine content in the salt has been developed in consultation with the members of the SHGs and is being implemented rigorously. Stringent mechanisms have been incorporated to ensure that all the salt produced and processed under the project, strictly adheres to the iodization norms of 30PPM at the production level. **The project has a “Zero-tolerance” policy for inadequate iodization of salt produced by its SHGs.**

The SHGs are motivated and encouraged to adhere to the quality norms for iodization and packaging. If any SHG does not conform to the quality norms, penalties are imposed. (The penalties to be imposed have been decided by the SHGs themselves).

Total production of iodized salt for the day is duly packed, stamped and accounted for before it is dispatched for marketing.

VI. Operating Under Established Business Practices

With a view to equipping these SHGs to run their enterprise under the established business practices, it was considered prudent to train them on maintaining a record of financial and other business transactions. A set of ‘Records and registers’ was specifically developed and printed for this project. Each SHG was given one set and were oriented and trained hands-on on maintaining them properly and accurately, especially those pertaining to salt production, quality of iodization, and its sale, to avoid

any discrepancy and mistrust among the fellow members. Following is the list of record maintained at each plant site:

- ✓ SHG Bill Book
- ✓ Letter pad
- ✓ Labour Attendance Register
- ✓ Ledger and Cash Book
- ✓ Logbook for inflow of raw salt and out flow of iodized salt;
- ✓ Register of Meetings and Decisions; and
- ✓ Bank Pass Book

The processes of book keeping and operating in a business mode were unfamiliar to the SSPs. Monitoring concepts were new and maintaining records -especially keeping a log-book for inflow of raw salt and out flow of iodized salt as well as a cash book were difficult because of low literacy and numeracy skills among the salt producers, yet they learned book-maintenance and now take great pride in being able to manage their enterprise efficiently.

VII. Federation Formation - A Step Towards Sustainability

It was envisaged that the establishment of Federation would help in building the sustainability of this endeavor. Through the Federation the SHGs would be able to draw maximum benefit from the various schemes of government and financial institutions for enhancing the production of appropriately iodized salt. Furthermore, the Federation would become instrumental in regulating the quality of iodization, maintaining records and registers and establishing marketing links etc., which are crucial for sustainability.

Hence, through a democratic process, a Federation was established. Federation's name 'Naveen Utsah' Sahkari Samiti was arrived at with common consensus. It means "***New Enthusiasm***"; reflecting the spirit of the project and the SSPs associated with it.

All the SSPs associated with this project became members of the ***General Body*** of the Federation by depositing the membership fee. Each SHGs, nominated one representative from their group to the ***Executive Body*** of the Federation and selected four Office Bearers: President, Vice-President, Treasurer and Secretary from amongst the members of Executive Body of the Federation. The selection was based on consensus and not elections, in order to minimize the polarization of SHGs.

This Federation has developed its own bylaws for regulation and is now a fully registered body registered with the "Office of the Registrar of Cooperative Societies

(ORCS)", Government of Rajasthan. The officials of ORCS regularly visit the Federation office and scrutinize the relevant documents and records. This Federation is also subjected to external govt. audit for all its transactions. It is hoped that this will help to build accountability and trust amongst its members.

Following are the key functions of Federation:

- ✓ Ensuring adequate iodization of salt through self-regulatory mechanism
- ✓ Supporting the SHGs in marketing of iodized salt produced by them
- ✓ Promoting salt brands that have got the trademark registered with the Federation
- ✓ Promoting savings among members of SSP-SHG and streamlining the system of internal lending and borrowing and ensuring proper loan availability, its disbursement and recovery
- ✓ Maintaining daily, monthly or annual deposits of the members and providing credit, material or other services as per their needs
- ✓ Making available the items required for salt production like raw materials, tools and equipments, machinery, etc to the members, at a competitive price
- ✓ Making arrangement for transportation of salt by networking with road transporters, and facilitating allocation of railway wagons quota through the salt department
- ✓ Encouraging mutual help and coordination among members of the Federation
- ✓ Managing resources to minimize the cost and maximize the utilization

H. BRAND DEVELOPMENT AND MARKETING OF IODIZED SALT

The SHGs are producing iodized salt under different brand names as per the supply orders they get from the traders. However all the SHGs are not able to get the orders for iodized salt from traders in the same proportion. Hence the tonnage of iodized salt produced and the profit from sale of iodized salt varies amongst the various SHGs. Sometimes some SHGs operate at 50% of their capacity due to paucity of orders from the traders and lose on production potential and the profit.

In order to ensure a market for the iodized salt and thus the project sustainability, it was proposed that common brand name(s) be identified for the salt produced by the SHGs, which would be marketed through the 'Apex Federation' on behalf of the SHGs. This would provide steady market to the SHGs who are not able to get sufficient orders from the traders.

Suitable strategies were discussed to deal with this most challenging part of the project because there was a competition with brands that are already in the market, and the skills / expertise required for brand positioning and marketing are not readily available among the SHGs. The strategy for brand development included:

- ✓ Identifying brand name(s) for the iodized salt produced by the SHGs
- ✓ Attractive designs of salt packages
- ✓ Registering the trademark of common brand name, and
- ✓ Promotion of common brand names and creating an awareness in the community to consume adequately iodized salt

Through a consultative process amongst the SHGs, two brand names '**Keerti**' and '**Sukhara**' were selected for marketing iodized salt produced under the project. **Keerti** salt has higher moisture content while **Sukhara** is sun-dried to make it free flowing. Both the brands have different market penetrations/ territories. Indian Institute of Craft and Design (IICD) developed the packaging designs. The designs were finalized after taking the opinion of consumers and the SHGs. Both of the brands have been registered and trademark is obtained.

This initiative has provided a steady source of market for the iodized salt. The Federation has been able to secure orders from various traders and about 17,000MTs of iodized salt under the two brand names has been marketed since the strategy was implemented.

I. CREATING AWARENESS ABOUT THE NEED FOR CONSUMING ADEQUATELY IODIZED SALT

Low levels of awareness among the community about IDD and the need for consuming iodized salt has been identified as one of the major road blocks in achieving reduction in IDD and USI goals in India. Hence, power-packed campaigns were specifically designed under the project using consumer-friendly communication materials like flyers, banners, posters, flex sheets, caps, stickers etc. The campaign activities included rallies, slogan writing, poster-making competitions, street plays, puppet shows and street-corner meetings etc. with effective involvement of children and community members.

The action-packed IDD awareness campaigns were effective and now are sustained through special IDD awareness programmes organized during special events such as India's Independence Day, Republic day, National Nutrition Week, Hunger Campaign, Stand Up and Speak Out Against Poverty etc.

J. DEVELOPING SOCIAL RESPONSIBILITY

The SHGs are constantly encouraged to run the business endeavour with compassion and social responsibility. As a result, all the SHGs have secured the lives of those employed within their plant sites, by taking out a group insurance policy against accidents and death during plant operations as well as individual insurance policies for all their workers. Each SHG has a labour force of about 10 to 12 persons working at their salt-pans and their plant site. This individual insurance policy provides health insurance coverage of Rs. 50,000/- per person. The premium for this insurance policy is paid by the SHGs.

K. SUSTAINABILITY PLAN

In order to ensure project sustainability after the phase-out of external project support, the following actions have been built in:

Action 1: Establishing, Strengthening and Sustaining Common Brand(s):

This will provide ownership, regulate quality of salt iodization and help the Federation to garner loans / subsidies for product improvement, packaging and marketing from the formal financial sector.

Action 2: Gradual Scaling Down of KIO₃ Subsidy

Sudden withdrawal of the KIO₃ subsidy would affect the cost of production, and profit gains of the SHGs, before they are established enough to compete with the existing market prices. Hence a gradual, phase out of KIO₃ subsidy is planned during which the Federation would establish an annual rate contract system for procurement of good quality KIO₃ at competitive prices.

Action 3: Coordination with Stakeholders and Funding Agencies

To maintain and strengthen the coordination and linkages with all the stakeholders, Federation members are invited to all the meetings with the stakeholders. This enables them to become familiar with the formal and official systems of communication and learn the skills of discussions and negotiations.

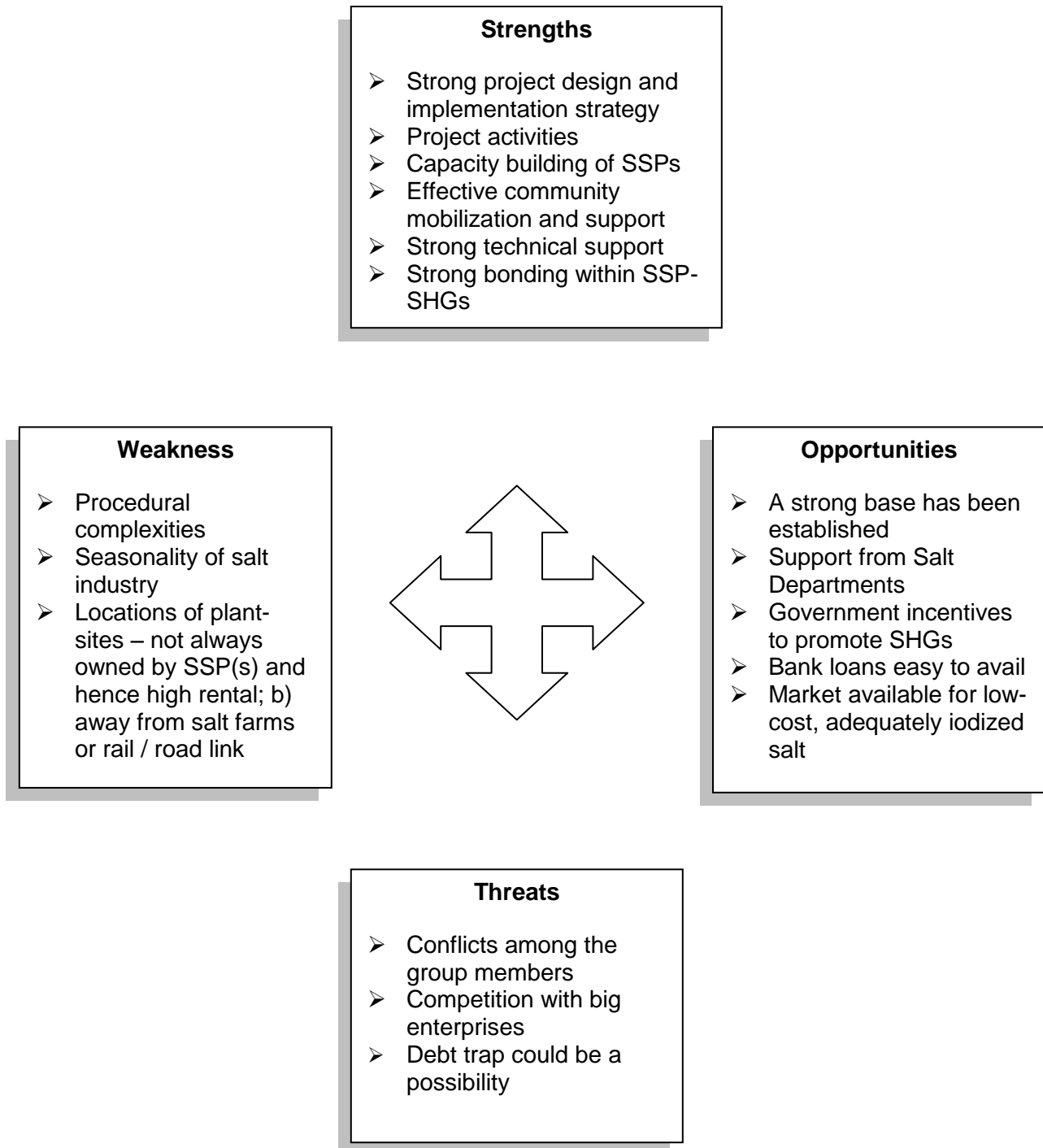
Action 4: Development of Quality Assurance System on Long-term Basis

An existing self-regulatory mechanism within the SHGs, with external checks for quality assurance by the Federation and the Salt Department, will be strengthened. The Federation would appoint salt extender and the chemists for externally checking the quality of salt iodization so that the brand value and quality is maintained.

L. SWOT ANALYSIS

In order to make mid-stream adjustments for risk management and expansion planning, a 'Strengths, Weaknesses, Opportunities and Threats' (SWOT) analysis was undertaken

A Diagrammatic Representation of SWOT Analysis



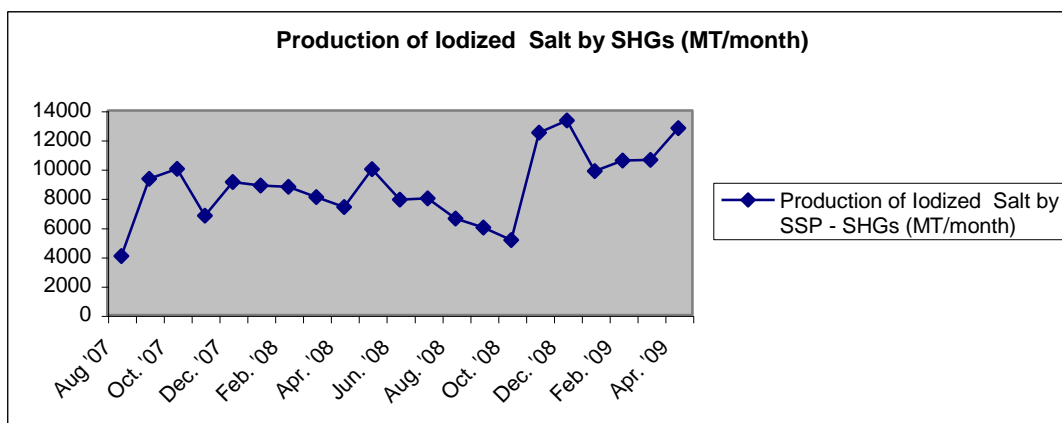
K. PROJECT ACCOMPLISHMENTS

The implementation of this project, encompassing an integrated approach to deal with the issue of IDD and its solution USI, has been an enriching learning experience for all the partners: WFP, MI and CECEOEDCON.

The programme has made quick progress in a very short time and the iodized salt is appropriately reaching the general public. This success is indicative of the commitment of the people and partners involved in this project.

The following key milestones sum up the project success:

- ✓ 211 small salt producers joined the project under phase 1 and 2 and were grouped in 20 SHGs.
- ✓ Over a short period of about 20 months, the SHGs have together produced about 185,000MTs of adequately iodized salt that is expected to have reached almost 50 million people



- ✓ The SSPs have acquired reasonably good skills for record keeping, basic business management, and internal quality control.
- ✓ The SHGs are motivated to undertake labour welfare activities and consider themselves as partners in development and critical actors in IDD reduction.
- ✓ The Federation has opened several avenues for the SHGs by developing linkages with other financial institutions and markets, which has had a multiplier effect in sustaining their businesses.
- ✓ Common brand names for the iodized salt produced under the project have brought value and credibility to the SHG produced iodized salt, facilitating market outreach and access to government schemes for the salt industry.

- ✓ Increased awareness of IDD and value of consuming iodized salt within the community has been achieved.
- ✓ The project has received recognition and appreciation from all the stakeholders, donors, and government, notably the Salt Department.
- ✓ Recognized as a success, this model has now been replicated in two additional districts of Rajasthan at the behest of Salt department, Government of India and the request of SSPs in those districts.

N. LESSONS LEARNT

- ✓ Small salt producers contribute significantly to salt production in India and, with proper support, can become part of the formal iodized salt industry in India.
- ✓ Good advocacy and transparency in selection process at the beginning of the project help create a better understanding of the project requirements and sustain the momentum.
- ✓ Clustering of SSPs into SHGs creates efficiencies in terms of salt production and processing, facilitating improved market positioning and also, quality control.
- ✓ Community ownership is an obvious and clear-cut criterion for success.

O. CHALLENGES AHEAD

Despite the success, there are many challenges that still have to be met to consolidate and sustain the current achievements. These include:

- ✓ Enhancing the self regulatory mechanisms of salt producers
- ✓ Linking up with government systems for monitoring and quality assurance and reinforcing those systems
- ✓ Ensuring sustainability of production of iodized salt by salt producers through improved competitiveness and marketing
- ✓ Initiating and sustaining commercial procurement of KIO_3 and maintenance of salt iodization equipment

Key words: Iodization, small salt producers, quality assurance, IDD, sustainability

Acknowledgement

The authors gratefully acknowledge the support, encouragement and direction provided by their respective organizations: United Nations World Food Programme (UNWFP) and Micronutrient Initiative (MI).

The authors also acknowledge with gratitude the financial support provided by the Government of Canada through the Canadian International Development Agency (CIDA) and MI to implement and expand the project to cover the SSPs in the entire salt-producing belt of Rajasthan in India.

Grateful acknowledgement is also due to the Union Salt Commissioner and Deputy Salt Commissioner, Government of India as well as their field officers who provided all the support, encouragement and timely guidance for implementing this project.

The project staff of MI and CECOEDECON put in their best efforts to make this project a huge success. We acknowledge their hard work, commitment and faith in the project with all humbleness.

Most importantly we acknowledge the enthusiasm, never-say-die spirit and dedication of the small salt producers, without whom it would not have been possible to implement this project.