FINAL DRAFT

Review of Progress toward Sustained IDD Elimination in Indonesia

Report of a review mission, 4-15 August 2003

24 September 2003

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Executive Summary

At the 1990 World Summit for Children, the Government of Indonesia committed the nation to the goal of virtual elimination of Iodine Deficiency Disorders (IDD). The national commitment was re-enforced in May 2002 at the U.N. General Assembly Special Session on Children by affirming "Sustained IDD Elimination by 2005". In spite of the considerable national investments in IDD elimination, supported by UNICEF and World Bank, however, the household use of adequately iodized salt has remained stable at 65-70% for more than 5 years. Today, about 15% of households in Indonesia still consume non-iodized salt. Thus, in the short time remaining until the goal deadline, a critical challenge is to ensure that all the salt supply for consumption in Indonesia is iodized prior to reaching the household.

A Presidential Decree of 1994 enacted national legislation in Indonesia by mandating that all salt for human consumption must be iodized (the program strategy known as Universal Salt Iodization, or USI). This was followed by MOIT issuing a Ministerial Decree in 1995 (and modified twice since then), which defines a national quality standard for salt producers, along with licensing requirements and criteria for processing, packaging and labeling of iodized salt. The national standard is within reach, and is being practiced, by the larger-scale salt processing industries. A substantial part of the smaller scale producers and, more importantly, the many small-scale farmers of people's salt, however, are not iodizing whereas the salt of the latter is not subject of any formal inspection or enforcement. Yet, these are sources of household salt in a large part of the population, particularly in West, Central and East Java, Nusa Tenggara, South Sulawesi and Bali.

The review recommends that the approach in Indonesia should become more tailored to take account of the differences in stages of progress toward reaching USI in the Districts. In those Districts where the use of iodized salt in households has reached above or close to 90%, emphasis should now be placed on efforts that consolidate and sustain USI. This will require the persistent enforcement Local Acts (Perda) that prohibit the import, sales and trade in non-iodized salt, combined with an annual oversight meeting among the leadership (District Coalition) to assure and publicly report on evidence that the success is enduring. Where the use of iodized salt in households is lagging, we recommend also enactment and execution of District-based Local Acts (Perda) to prohibit the trade/sales of non-iodized salt, along with efforts in communications, monitoring and salt iodization, tailored to reflect the stage of progress in the District. The immediate action in Districts where less than 40% of the salt is iodized and large numbers of people's salt farmers are clustered, should be to explore and influence the salt flow from its harvest to consumption and apply new ways to absorb the people's salt into a direct iodization system rather than encouraging a proportion to be upgraded and iodized, while permitting another proportion to continue entering non-iodized into the consumer markets.

As is the case nationally, three elements are required in Districts for sustained IDD elimination based on USI: High-level political commitment to a well-defined goal, enabling policy, and an effective strategy aligned to the realities and opportunities in the District. In turn, these elements are supported by the three program components: Information management, communication, and program operation. The report lays out directions and recommendations for reaching this re-orientation of approach, and it indicates ways for UNICEF support for the national goal of sustained IDD elimination through USI.

UNICEF has been a consistent strong partner in the national endeavor to eliminate IDD in Indonesia. It has added great value to the national progress already made by continuous presence, policy influence and technical expertise. In the mission's views, UNICEF should put main emphasis in the immediate future on developing the District capacities to manage a refined approach that takes account of the District's USI achievements, evident from annual SUSENAS surveys. UNICEF can assist in the development and dissemination of models that address the leakage of non-iodized salt in selected Districts with many salt farmers and <40% household iodized salt use. UNICEF should continue also to direct some resources to national efforts that effectively reach into Districts, and enhance on the advocacy, guidance, technical assistance and knowledge to be channeled through public, industry, civic and community organizations. This may require UNICEF to sustain a high technical expertise level. The task of reaching 35million population not yet consuming iodized salt in Indonesia is momentous.

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Background

Iodine deficiency is well documented as the most common cause of preventable mental retardation. Among all human body cells, brain cells are particularly sensitive to low thyroid hormone supply due to a lack of iodine, the essential basic building block. The critical phase in life of greatest likelihood that brain damage of iodine deficiency may occur is during early pregnancy when a fetus depends on the expectant mother for its supply of thyroid hormone required to stimulate fetal brain development.

In a population with iodine deficiency, each next generation of newborns enters the world with an IQ endowment below potential. The consequent generation-wide deficit of mental performance leads to lower learning ability when young children grow up to school age, and this translates to less productive performance and earning capacity when school children enter the work force. The consequences of iodine deficiency in the population thereby accumulate to a constraint on the pace of social and economic development that no nation can afford. Yet, iodine deficiency is straightforward to reduce and eliminate: Assure the supply of a little additional iodine in the common diet. This is most cost-effectively and safely assured by adopting the national strategy of universal salt iodization (USI), i.e. the iodization of all the salt for human and animal consumption, including the salt used in food processing industries.

Iodine deficiency results from a lack of iodine in the soil and water in the environment. It therefore is important that elimination of iodine deficiency is accomplished by a strategy that can be permanently pursued. From experience in more than 50 countries over the past 50 years it is well documented that the agreed-upon strategy of USI can be sustained. The goal agreed at UNGASS in May 2002, therefore, is constituted of two blended objectives: (a) Achieve the IDD elimination goal through USI by 2005, and (b) Assure permanent progress of USI to sustain the success of IDD elimination.

Indonesia has historically been at the forefront of the global movement to conquer IDD. It was among the leading nations that sponsored the landmark resolution, accepted at the 1990 World Summit for Children, to virtually eliminate IDD. Also, Indonesia was among the handful of nations at the Policy Conference on Hidden Hunger in 1991 that published a draft outline of the national enabling policy by a program based on supplies of high quality iodized salt and targeted distribution of iodized oil in the most IDD affected areas. Despite the outstanding achievements in USI, the multi-pronged strategy continues into the present. The DG Community Health, Directorate of Nutrition is leading agency, coordinating the efforts of 5 Directorates in 4 Ministries: MOH (Directorates of Nutrition, and Health Promotion), Food & Drugs Control (Food Standardization); MOIT (Inorganic Chemicals Industry); and MOHA (Regional Development).

The ongoing national program received a significant boost when in 1994 the President of Indonesia issued a Decree, stating that all the salt for human consumption must be iodized, and standards set by MOIT for its manufacturing, packaging and composition. The Decree also stipulates that MOIT must promote and control the production, packaging and labeling of iodized salt, and that the enforcement cost must be met by the MOIT. The national commitment evidenced from these laws follows the logic that underlies an agreement in 1993 by WHO and UNICEF to recommend USI for all nations where IDD is a public health issue. Achievement of USI ensures that all members of each household receive the iodine required through their daily meals, and that no person escapes the benefit of adequate iodine nutrition. Consequently, each woman when becoming pregnant would convey to her unborn child the protection against brain damage of iodine deficiency that otherwise might occur.

Impressive progress has been made in Indonesia toward USI. A relatively cheap indicator of national salt iodization status[1] that can be obtained easily on a large scale is the rapid testing in households of the kitchen or table salt for iodine. District-representative household surveys conducted annually by the

[1] See http://www.childinfo.org/eddb/idd/index.htm (Accessed 02 September 2003)

Central Bureau of Statistics (BPS) show that since the past 5 years, some 65% of households in Indonesia consume adequately iodized salt (>30ppm potassium iodate as per national standard) and another 15% use salt that is at least somewhat iodized (5-30ppm KIO_3). The national achievement has leveled off for the past several years, and about 15-20% of households (or 33-35 million people) in the nation do not eat iodized salt as part of their regular meals. These nationally aggregate figures hide considerable differences in accomplishment between Provinces and Districts, however, particularly when the household salt information is combined with demographic information of population size.

Historically, MOH has been the GOI nodal Ministry in coordinating the national efforts toward IDD elimination. Into the 4th Five Year Plan, nearly 11.5 million iodized oil injections (86.8% of the target[2]) were realized in Indonesia through health care services. Annual oral capsule distribution has replaced the periodic intra-muscular injections from 1992 onward[3].

In February 1997, Indonesia launched the "Intensified IDD Control Project" (IDDCP), at a total estimated cost of $43.3million and supported by a World Bank loan of $28.5million for 1996-2002 (extended until end 2003). A National Steering Committee, chaired by the Deputy Bappenas and with members from MOIT, Health, Finance and Home Affairs, provides overall policy direction. In addition, a Technical Team chaired by the Director of Community Nutrition (MOH) gives operational advice for efficient program implementation. Echelon II members of the constituent Ministries are members on the Technical Team, including MOH, MOIT, MOHA, Cooperatives, Finance, Bappenas and Central Bureau of Statistics. In coordination with the Technical Team, the National Steering Committee sets and issues overall policy guidelines, and oversees inter-sectoral coordination, regulations governing salt industry, improvement of regulatory enforcement of iodized salt, stimulation of demand for iodized salt, and monitoring iodine nutrition of the population. The Director of Community Nutrition acts as Project Director of IDDCP, and heads a Central Project Secretariat that administers the day-to-day operations.

In the Provinces, IDDCP administration –including District planning- is handled by a Provincial Project Management Unit (PMU), chaired by either the Head of Provincial Planning Board (Bappeda) or the Head of Provincial Health Department. In each District, a District Project Management Unit (DPMU) has been established for project management. As in Provinces, the DPMU is chaired by either the Head of District Bappeda or Head of District Health Service (DHS), and members include an Executive Secretary, a Treasurer, and representatives of DHS, Bappeda, and District Industry & Trade Service.

MOIT has set national standards for iodized salt in 1995 (SNI) and made revisions in 1998 and 2000. The present standard for iodized salt prescribes a minimum of 94.7% sodium chloride and a minimum of 30ppm iodine as KIO_3. Since issuing the SNI, enforcement of performance upon the total alimentary salt supply has remained incomplete, however. MOIT is the nodal Ministry that provides leadership, oversight and control of iodized salt production by the 376 licensed industries, which obtain their salt from people's farmers or by imports, and then upgrade the quality of raw salt including iodization and packaging. MOIT inspection acknowledges that only 236 salt producers/processors out of the 376 are meeting the SNI. More importantly, MOIT is not tasked to enforce -nor does it see to it- that non-iodized salt does not enter the market for human consumption. The Food and Drugs Control Agency BPOM inspects iodized salt available for sale in the markets, but also BPOM does also not have -nor does it exert- authority to prohibit the sale of non-iodized alimentary salt.

The national standard for iodized salt is within reach by large-scale salt production industries, and they are to a large extent responsible for the progress already made in universal use of adequately iodized salt in Indonesia's households. Importantly also, the major food processing industries in Indonesia purchase good quality iodized salt from these salt producers, thus assuring a meaningful additional channel for the supply of extra iodine to the population. Small-scale salt producers/processors (i.e., up to 30% of the licensed industries according to MOIT and the Association of Iodized Salt Producers Aprogakop), and more importantly, the numerous small-scale farmers of people's salt (estimates are 17,000-20,000) are not measuring up to the SNI standard, however. Yet, this group of producers and

[2] Females 0-35 years and males 0-14 years of age in Districts with moderate or severe IDD, classified on the goiter prevalence measured among primary school children

[3] The iodized oil capsules (200mg iodine per capsule) are produced by Kimia Farma. Target groups are 15-45 year-old women in moderate and severely endemic Districts, selected on goiter prevalence among school children

the numerous small people's salt farmers are the source of non-iodized household salt consumed by a sizable part of the population of Indonesia. It is widely recognized that in terms of meeting the IDD elimination goal through USI, and sustaining the elimination success, the continued supply of alimentary salt in non-iodized forms to households should be the focus of intensified efforts in the near future.

The Government of Indonesia is implementing a decentralization policy (Law on Decentralization and Regional Autonomy, effective 1 January 2001) that puts Districts at the forefront of planning, and shifts the authority for development initiatives to the Kabupaten (District), headed by an elected Governor (Bupati), in dialogue with the District Parliament. This policy means that responsibility for program operations is transferred to the Districts. The national Government reserves a leadership position in guiding enabling policy (including national goal setting) and development of strategy and program operation guidelines, but the effectuation of IDD elimination through USI now is no longer central. The leadership of implementing the familiar program operations components information management, communication and iodized salt supply therefore is based in Districts and depends on District capacity. The decentralization would provide a new opportunity for achievement of IDD elimination through USI by exploiting a potentially complementary role of Local Acts (or Perda) as an additional measure to the existent national legislation and enforcement set-up. Development and effectuation of Purda in Districts can be made to close the gap between the intent of the Presidential Decree (*all* alimentary salt should be iodized) and the partial follow-through by the MOIT Decree (*only quality salt* is iodized). The aim of District legislation should be to ensure that no people's salt reaches households without prior iodization.

In view of the urgency to attain the goal and given an opportunity for analysis and, if required, re-orientation of approach as part of the regular planning cycles in GOI and its partners, UNICEF Jakarta commissioned a review of progress toward sustained IDD elimination through USI in Indonesia, with special focus on the role and involvement by UNICEF and recommendations for its future support. A review mission[4] consisting of national and international experts and organized in three teams (see terms of reference, Annex 1) visited Indonesia between 4 and 15 August 2003.

The review was undertaken using a mix of methodologies that included literature review, unstructured key informant presentations, interviews and field visits. The documents reviewed included Government reports, project reports, research reports and materials produced to support program operations. Key informant interviews were conducted with national and local level Government officials, industry leaders, NGO representatives and scientific, media and religious groups. Field trips provided an opportunity to visit retail markets and to get a more realistic understanding of the conditions of program operation in the field.

The teams met with a wide range of officials and officers at national, provincial and District levels, including Health (MOH), Industry & Trade (MOIT), Education MOE), Religious Affairs (MORA), Home Affairs (MOHA), Food & Drugs Control (BPOM), Bappenas, Aprogakop, Kimia Farma, Fortification Coalition of Indonesia (KFI), Kiwanis Indonesia, PRISMA, Johns Hopkins University, the Independent Journalists' Alliance (IJA), World Bank, UNICEF and others. The teams visited the Districts/cities of Cirebon (West Java), Surabaya, Sampang and Pamekasan (East Java), and Ujung Pandang and Bantaeng, Takalar and Jeneponto (South Sulawesi). The mission is grateful for all the hospitality and cooperation extended throughout its work and visits by the many individuals and organizations involved.

This report sets out to summarize the mission's findings (Chapters I through IV) and recommendations with special reference to UNICEF future assistance.

[4] The mission consisted of Frits van der Haar (Task Team Leader, Emory University School of Public Health, Atlanta, USA), Sunawang (local Consultant), Karen Codling (UNICEF EAPRO), Abdulaziz Adish (UNICEF Jakarta), Justus de Jong (Akzo Nobel Salt, Hengelo, the Netherlands), Cucu Sutara (local Consultant), Anna Winoto (UNICEF Jakarta), Waithira Gikonyo (UNICEF New York), Brian Weston (Morton Salt, Chicago, USA) and Benny Soegianto (local Consultant). During field visits to East Java and South Sulawesi, the teams were accompanied by officers Bambang Hernanto and Sigit Dwiwahjono of the Ministry of Industry and Trade. Anton Susanto (Communication Officer, UNICEF Jakarta) provided valuable inputs to the discussions by team 3.

Chapter I: Production, Importation and Uses of Salt in Indonesia

Sea salt (or sodium chloride, NaCl) in Indonesia is manufactured by seawater evaporation. There is no underground salt, and thus no source for salt mining. Factors favorable for sea salt manufacturing include a vast sloping coastal surface area, relatively high sea salt content, and a long period of high temperature, low rainfall and high wind speed. The rainfall rate (amount of rain and duration of the rainy season) and evaporation rate (the ambient temperature and humidity) in Indonesia put the nation at a significant disadvantage for local sea salt manufacturing as compared to India and Australia.

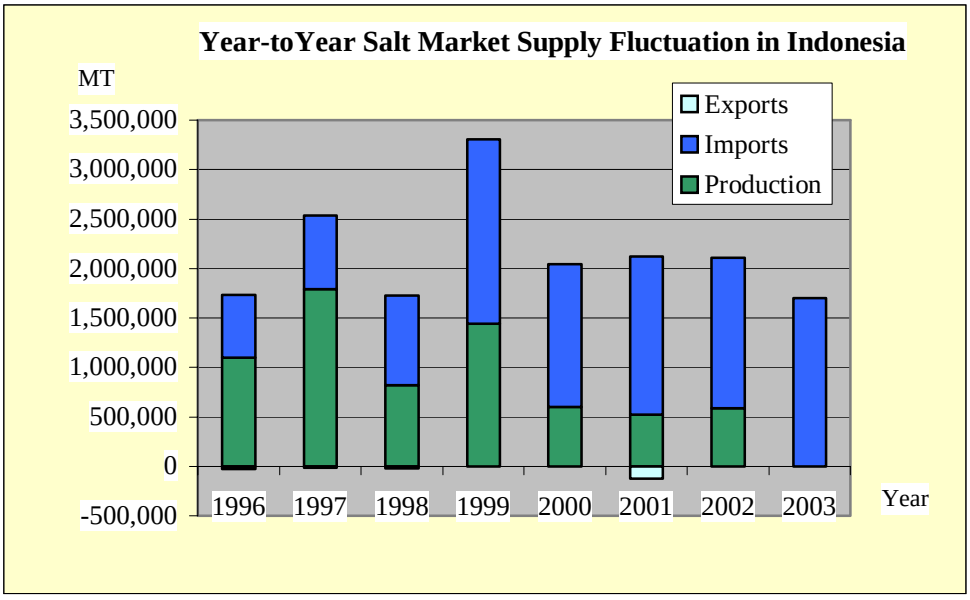
National salt supplies and consumption trends

The amount reported of salt flows through the markets in Indonesia fluctuates considerably from year to year and along with increasing import volume, the apparent market supply shows sizable variation:

Salt market developments in Indonesia (Metric tons), 1996 – 2001[a]					
Year	*Production*	*Imports*	*Exports*	*Market supply*	*Growth (%)*
1996	1,097,000	633,980	28,673	1,702,311	-
1997	1,790,000	748,440	15,081	2,523,359	48
1998	818,000	907,977	23,252	1,702,745	-33
1999	1,440,000	1,867,271	849	3,306,422	94
2000	600,000	1,445,967	3,218	2,042,749	-38
2001	525,340	1,596,167	122,076	1,999,431	-2
2002	585,000[b]	1,522,000[b]			
2003		1,700,000[b]			

[a] Source: Indochemical, 2002

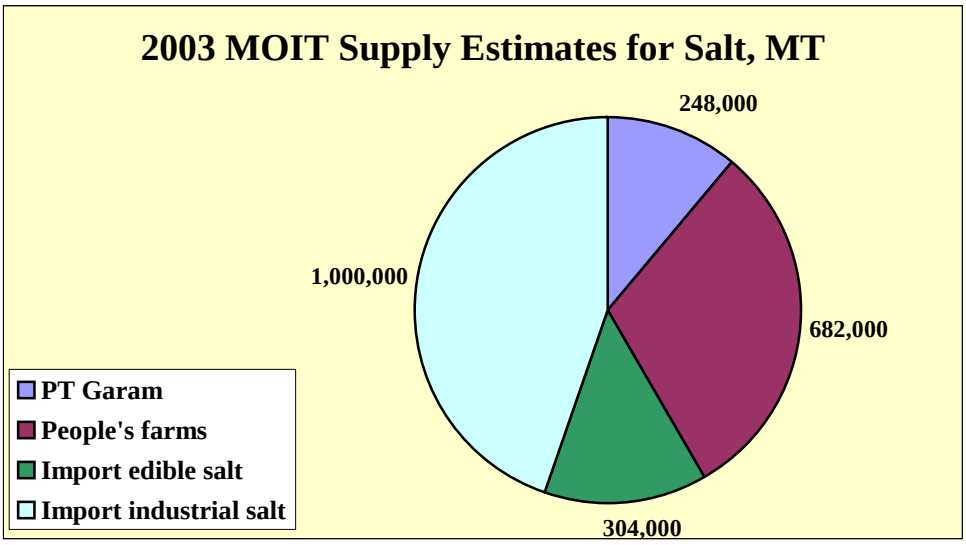
[b] Preliminary data, Aprogakop, 2003



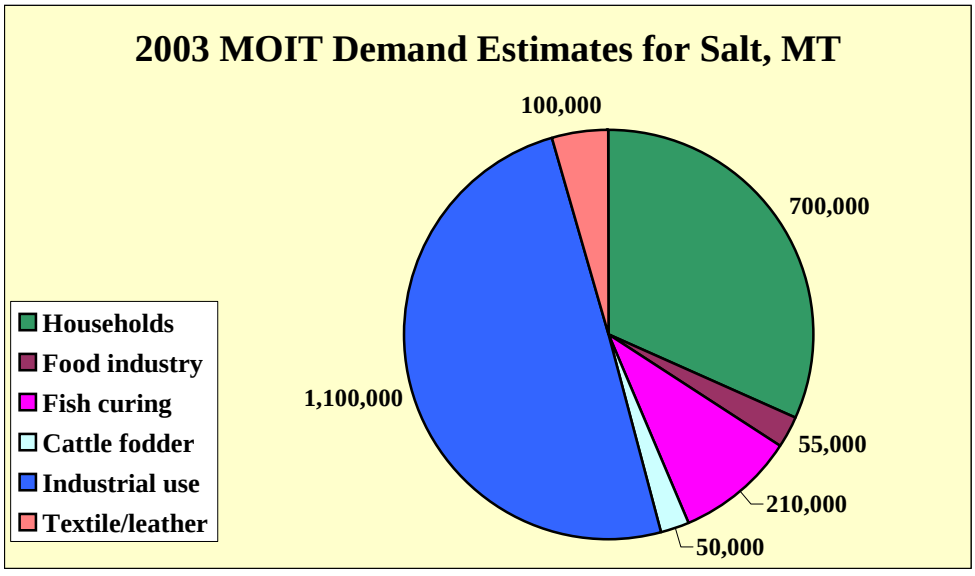
As opposed to the total market turnover, the salt supply for consumption by the population is assumed to be relatively stable and growing at ±1.5% each year. The human dietary salt intake results from its use in meal preparation and consumption in the households and restaurants, and from the use by food industry of salt as an ingredient in the processing of food products. The food processing industries in Indonesia use virtually only quality iodized salt (Some margarine industries resist buying iodized salt, but they constitute a minority). These food processors include foremost the fish salting and curing industry, followed by (instant) noodles, soy sauce/ketchup, crackers/biscuits, snacks, bakeries, cakes and cattle feed, as well as fish/vegetable canning industries. Among these customers, the (instant) noodle industry is the most important for direct human consumption (10% of salt uptake by food industry), followed by crackers/biscuits (7%) and sauce/ketchup/mayonnaise (3-4%). The largest share of the salt supplied to food industries goes to fish salting, ice-cube production and cold storage.

Demand and supply estimates for 2003

MOIT makes annual projections of the demand-supply situation, based on historical trends and the expected weather conditions. The projections are adjusted monthly, based on reports by MOIT officers located throughout the country. At the time of the mission's visit –i.e. early in the harvesting season- the domestic salt harvest for 2003 was projected at 930,000MT, derived from PT Garam (248,000MT after processing) and people's salt farmers (682,000MT after processing). Given a projection of total demand of 2,326,000MT salt for the year 2003/2004, MOIT calculates an import requirement of 1,304,000MT, made up of 304,000MT consumption salt and 1,000,000MT salt for the chemical/caustic soda industry.



MOIT uses the following demand projections for 2003: Household salt 700,000MT (200,000MT to be imported), food industry 55,000MT (35,000MT from imports), fish curing 210,000MT (all domestic) and cattle fodder 50,000MT (25,000MT imports). Oil drilling (100,000MT – 50% import), textile and leather (100,000MT all domestic), and pharmaceutical (1,000MT) and caustic soda industries (1,000,000MT), both from import, make up the national balance estimate.



Production areas and locations

MOIT reports that 36 thousand hectares of land in Indonesia are set aside for sea salt manufacturing, with 22.7 thousand hectares, or 63%, productive:

Area of Salt Manufacturing, Indonesia, 2000		
Location	Area (hectares)	
	Nominal	*Productive*
- Aceh	300	250
- West Java	1,746	1,716
- Central Java	3,249	3,248
- East Java (Private)	13,047	9,713
- Bali	29	29
- West Nusatenggara	1,574	1,052
- East Nusatenggara	9,704	304
- South Sulawesi	1,264	1,260
- Central Sulawesi	20	20
PRIVATE FARMERS	30,937	17,618
- East Java (State owned)	5,116	5,116
Total Area	36,050	22,700

East Java is the Province with highest potential, i.e., with >50% of the nominative area and 65% of the total *productive area*. Of the total productive area in Indonesia, 22% is state-owned (PT Garam) and located on Madura Island. The next largest productive areas are in Central Java (14% of total) and West Java (7.5%), followed by South Sulawesi (5.5%) and West Nusa Tenggara (4.6%). East Nusa Tenggara has high potential but only 3% of the nominal area is productive. The production areas in Aceh, Bali and East Nusa Tenggara are minor.

The large proportion of farms use only the most basic technology, and predominantly salt is cropped in a single cycle rather than by the required technique of staged ponds for evaporation, concentration and crystallization. The result is low quality coarse salt containing many impurities that render it humid and dirty, and in the reality of many other countries unfit for human consumption. When upgraded by salt producers, the loss in bulk can be as high as 10-20%, depending on the initial NaCl content. Yet, this is the salt that is said to be culturally preferred in the household, for instance for grinding chilly peppers into common condiments.

A note on language:
In USI programming in Indonesia, the term “producers” is reserved for the licensed industries that upgrade and iodize salt under direction of MOIT and/or with Aprogakop membership. We often are following this convention in the report although we use “producer/processor” also to indicate the condition put by the MOIT license that consumer salt flowing through these enterprises to the markets must be upgraded.
We also introduce a new term “collector/trader” to indicate the enterprise, assumed mostly small, that obtains the salt harvested by small farmers and brings it to wet markets and households. It is reasoned that this enterprise must operate on a certain scale to be profitable. Most of the enterprises have not been identified yet.
“Salt farmers”, finally, are mostly individual (or family) enterprises that harvest the “people’s salt” from small plots of land by seawater evaporation techniques. Small farmers are clustered since the soils must be favorable and the land located close to suitable seawater inlet, under certain weather conditions.
Although the number of areas in Indonesia where salt farmers reside is limited, the number of salt farmers still is large.

Salt types and specifications

For ease of analysis, the salt supplies may be divided into two types, namely industrial salt and salt for human and animal consumption. Industrial salt, in turn, can be roughly subdivided as to its application in the caustic soda industry (NaCl>98.5%), oil drilling and fish curing (NaCl>96%), and the textile, leather and detergents industry (NaCl<94%). It is important to realize that the larger industries will set their salt standard requirements and state their specifications in purchase orders to salt producers.

Salt harvested in Indonesia has NaCl content of 94-96% at the highest. PT Garam, the state-owned salt enterprise, supplies salt to the other industrial sectors and to salt producers/processors. Small-scale farmers of people's salt largely tend to traders who serve the consumer and textile/leather/detergent sections of the market. Salt producers/processors obtain their raw salt from the salt fields as explained above, and in increasing amounts also from imports.

MOIT in 1995 released a national standard (SNI) for different types of salt. For industrial salt (caustic soda, etc), SNI 140/1976 specifies a minimum NaCl content of 98.5% and maximum water of 4% with no need for iodization. In present practice, the demand for this salt is met from direct imports by the chemical industry, largely from Australia.

For best quality consumption salt, MOIT adopted a minimum of 94.7% NaCl, at variance with the international standard for food-grade salt -the Codex Alimentarius-, which requires a minimum of 97.0% NaCl. Three types of consumption salt were specified in SNI 140/1976, namely quality I, II and III depending on NaCl, water and impurity levels. Initially, the required iodine content in Quality I salt was at 40ppm ± 25% iodine, to be added as KIO_3.

MOIT has revised the SNI twice since 1995 to adjust to the realities of the economy and markets for iodized salt producers (i.e. the industries that upgrade the salt quality, and then iodize and package it) and to accommodate for the low quality of salt harvested by the small-scale farmers of people's salt. Presently, the standard prescribes a minimum of 30ppm iodine and only two types of consumption salt are recognized, namely crude salt and iodized salt, each with a minimum content of NaCl at 94.7%, the latter with above mentioned iodine content added as KIO3.

Organization of the salt industry

Approximately 17,000–20,000 small farmers harvest people's salt in the 7 Provinces mentioned above. The exact number of salt farmers is unknown, and most are not organized in any formal manner. Since salt harvesting is a seasonal effort, small farmers mostly use seasonal laborers during the peak season.

The salt producing/processing industry consists of 376 registered "salt producers" who are licensed by MOIT for processing people's salt into SNI quality iodized salt. Of the 376 registered industries, 271 are member of the National Association for Iodized Salt Producers (Aprogakop), which was established in 1976 with the aim of providing technical assistance on improved quality iodized salt production. Of the MOIT registered producers and Aprogakop members, approximately one-third (or 80 in number) consist of medium- to large-scale producers -including the importers- who generally comply with the national standard and produce adequate quality iodized salt. The remaining 70% do not produce iodized salt that meets the national standard, which requires a specific set of processes (washing, grinding/crushing, drying, iodization). In addition, it is not clear whether the non-Aprogakop member producers/processors actually iodized their salt.

The Aprogakop chairman reported that it is common practice that salt producers, including Aprogakop members themselves, distribute non-iodized salt without sanction or punishment. As such, the incentive to iodize appears to be weak, and even those producers that are already iodizing salt may therefore become less inclined to maintain iodization. In order to stimulate enforcement of relevant legislation regarding production and quality of product, Aprogakop has approached MOIT, MOH and members of Parliament without success thus far. As an organization, Aprogakop does not reprimand members that do not iodize salt and do not meet national standards. They also do not stimulate their members to increase supply of iodized salt.

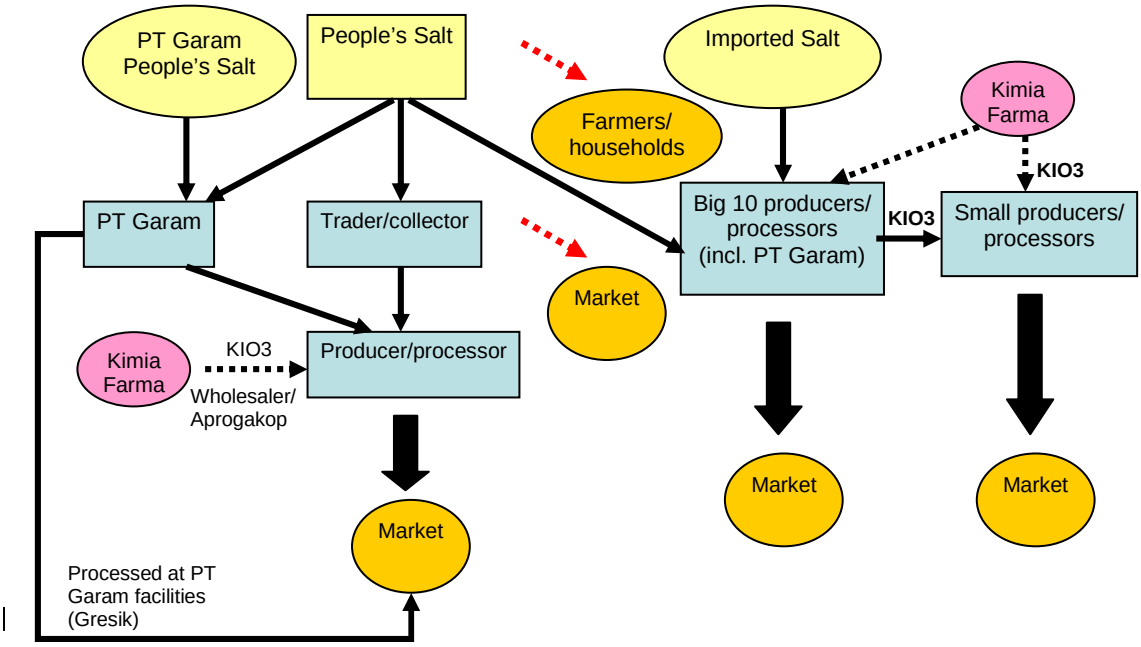
Flow of salt for human consumption

Some detail on the flow of salt for human consumption in Indonesia is provided in Figure 1. People's salt is supplied to either traders/collectors or directly to producers/processors. People's salt is also supplied to the local markets or even households. Traders/collectors either sell the salt directly to the markets or to producers/processors for further processing. Producers are then supposed to iodize the salt using potassium iodate supplied by Kimia Farma, and to sell the iodized salt to the markets through wholesale, retail, and/or food processing industries.

The state-owned PT Garam is both producing their own (people's) salt and also purchasing people's salt from local farmers. Around 10% of the raw salt produced by PT Garam is processed in their own

facility in Gresik, East Java. The remaining is either shipped in 50 kg bags to their branches throughout Indonesia (around 70,000 MT) or to other producers/processors (around 80,000 MT).

Figure 1. Flow of Salt in Indonesia



Given the large number of farmers and producers/processors, and an unknown number of collector-traders involved in the salt industry, the flow of salt in Indonesia is difficult to monitor and control. To identify points of "leakage", whereby salt for household consumption reaches the consumer without being iodized, one must consider the alternative routes through which salt travels from the salt fields to the consumer households. Since most imported salt is processed and iodized, flow of imported salt is not of great concern. Imported salt is more easily processed than domestic salt due to the relatively higher quality. Also, salt imports are regulated by quota and control by MOIT is presumed.

The first pathway that allows non-iodized salt to reach consumers is through direct sales from the farmer to the market without any intermediaries, sometimes directly to households. In such cases, the salt is usually taken from the field in bulk or packaged in 50 kg bags and sent directly to the market without processing. Direct sales to markets provide the farmers with quick cash income often with higher margins than selling to traders and producers.

The largest source of leakage, though, occurs through traders and/or collectors, who collect a portion of the people's salt from farmers. Ideally, traders and collectors should only supply the salt to producers for processing and iodization. However, in reality the traders and collectors supply a sizeable portion of the raw salt directly to markets without processing for similar reasons as stated above for the farmers. This is especially relevant in areas where supply of local salt exceeds the demand and capacity of producers is limited. For example, the amount of salt harvested in Jeneponto District of South Sulawesi is above the local demand. The salt is literally taken straight from the fields, carried across the street to the warehouses of the traders, where the salt is immediately packaged in 1kg or 50kg bags – wet, coarse and dirty as collected from the field – and shipped to other areas with unmet demand. As such, Jeneponto contributes to circulation of non-iodized salt in other Districts. Some iodization seems to take place at the trader/collector level using simple manual spray bottles. It should be noted that MOIT does not monitor practices of the traders and collectors for salt iodization and, in fact, discourages manual hand spraying for iodization. MOIT simply asserts that traders and collectors *should* only be supplying to producers for further upgrading of the salt, without addressing their role in leaking non-iodized salt to households.

In theory, all salt that flows through producers intended for human and animal consumption should be iodized. However, as admitted by Aprogakop and MOIT, many licensed producers supply non-iodized, or inadequately iodized, salt for human consumption to the market. This is another source of leakage that could be better monitored and regulated by MOIT.

Salt imports

Importation of salt to Indonesia began in 1998 when local production could not meet the national demand. Since then, MOIT allocates quotas for imported salt allowed per year per producer, depending on forecast of domestic salt production, stock position of licensed importers and expected demand. The quotas are first determined at the beginning of the year using the conservative forecast that domestic production will be satisfactory and quantity to be imported will be on the low side. MOIT regularly adjusts the quotas dependent on weather conditions and reports of their staff in the regions. It is not clear how the quotas are finally determined and allocated in practice.

Part of the consumption salt imported is intended for industrial or food processing purposes. However, some if it leaks to local vendors and finds itself in the market for household consumption. To some populations, such as West Java, this high quality non-iodized salt is very attractive to households as it is white, clean and easy flowing. However, the people of East Java claim that the imported salt has a bitter taste, and the relatively harder quality and smaller granules compared to domestic salt render the imported salt less favorable for traditional cooking practices, such as grinding the salt with other spices to make chili paste. The domestically produced coarse salt is more attractive in this sense.

Australia and India are the main sources of imported salt. In order to import salt, a producer needs to obtain an import license from MOIT. The basic condition for obtaining an import license is that the producer must have adequate facilities for processing salt either for household consumption or other applications, such as food processing. However, it has been observed that the importing producers supply part of the imported salt to other producers before processing. PT Garam is the largest importer, with nine other large-scale producers/processors licensed by MoIT for imports. The Australian salt producer Cheetam Salt is currently applying for an import license, though it has been observed that they are already importing salt from Australia to West Java since 2000. The initial quota for 2002 was in total 500,0000 MT. The table below shows the final quota and realized imports.

Import of consumption salt in Indonesia, 2002 [a]

Producer	*Import quota (MT)*	*Realized import (MT)*
PT Garam	202,000	201,868
PT Garindo	140,000	139,463
PT Susanti Mega	123,000	121,530
PT Sumatraco	105,000	96,650
PT Unichem Candy Industry	45,000	20,000
PT Saltindo Perkasa	40,000	28,000
PT Sumatera Palm Raya	20,000	20,000
PT Surya Mandiri Utama	19,000	13,000
UD Jankar Waja	12,000	4,315
Total for 2002	790,000	728,826

[a] Data from MOIT

Technology

The level of technology used for iodized salt production varies widely. Though the basic process is essentially the same, and includes washing, grinding/crushing, drying, sieving and iodizing, the team observed both rather sophisticated application of such technology and very poor applications. The most sophisticated application that we saw was at PT Susanti Megah in Surabaya, one of the big producer importers. However, another producer in the same city who stated roughly the same capacity uses illogical logistics and outdated equipment, hardly meeting basic quality standards. The producers seen in South Sulawesi with capacities ranging from 3-60T per day had no processing facilities. The salt purchased from the collector/trader was directly iodized by hand spraying and manual packaging, without any upgrading. The packed salt was manually sealed over a candle. The labor force included under-aged children working under unacceptable labor conditions.

Efforts at quality improvements

Farmers of people's salt in Indonesia generally harvest and sell a mediocre quality of salt. As rule of the thumb, the average productivity is estimated at 60ton /ha, although amounts may vary from year to year dependent on weather conditions and among farmers dependent on adoption of better evaporation practices and technology inputs. Generally, salt farmers do not grow a firm bottom in their harvesting ponds, which adds dirtiness to the final product.

To improve both the production capacity of salt farms and to improve the quality of iodized salt, MOIT with financial support of World Bank and others in 2000 initiated the concept of demonstration plots ("demplots"). The concept is based on adaptation of the field layout of several farmers, introduction of improved technology and multi-stage crystallization. A limited number of evaporation ponds (average 1 ha each) and one crystallizer pond are combined to an average total size of 5 ha, instead of 5 x 1 ha. This process is in place for years at PT Garam facilities, at a ratio of evaporation to crystallizer ponds of 8:1. Also equipment has been supplied to demplots to adopt washing, crushing, drying and iodization so that the local salt farmers should be better able to comply with SNI. The team observed three demplots with different capacities, small to medium-sized, located in East Java (Madura), South Sulawesi and West Java, and none was functioning. The one on Madura had been in operation for only six months before it stopped functioning completely. The process owner indicated not to continue the operation because of high cost, marginal profit for the product and low effectiveness. Other reasons for the non-functioning demplots include unsuitable capacity in relation to the demand, unclear ownership of the equipment, and differing perceptions on who is responsible for maintenance costs.

Salt producers also mention the low demand as justification that donated technology is not being used. In the last decade, PT Garam purchased and installed two 100,000T/yr installations to wash, crush, dry, sieve and iodize salt. However, those installations have also functioned for a limited time only and now are out of commission. The arguments included poor quality of supplied raw salt and competition in the end-user market by imported salt from Australia. However, PT Garam now ships the same poor quality salt from the same spot to local salt processors in Sumatra and Kalimantan.

Quality assurance practices

Based on the quality of the domestically harvested salt and realizing that the global standard cannot be met without draconic measures, MOIT adopted a national standard lower than accepted internationally. As mentioned earlier, the national standard (SNI) was first established in 1994 and then revised in 1998 and 2000. The most updated SNI (01-3556.2-2000) prescribes a NaCl content of at least 94.7% and minimum of 30ppm iodate for all iodized salt. In practice, the judgment of quality of people's salt used for human consumption is based only on visual inspection, both for small and large-scale production. Parameters for visual inspection include only color and cleanliness. The aforementioned QI, QII, and QIII criteria are only used for purpose of selling and buying salt. Also, the prescribed SNI standard for raw material as source for iodized salt (SNI 01-4435-G2000/Rev 1998) is not checked in practice.

Based on field trips and information from Aprogakop, it is apparent that practices for measuring quality of the final product in Indonesia do not meet standards. This not only applies to the small farmers and producers but even to some of the large-scale producers and importers. The team observed that either no quality control took place or the quality control did not meet any minimum norms such as sampling, analyzing, and recording. There are some exceptions, however. Food processing industries do require quality salt according to certain specifications, and quality control is generally in place for production of salt for these customers. However, the team did also learn that not all food processing industries purchase iodized salt. The argument that has been used not to purchase iodized salt for food processing applications is the perceived effect on the quality of the food product, for example discoloration when adding to margarine and cooking oil. Based on these observations, the team concludes that in quality assurance is poorly practiced, particularly for iodized salt for household consumption.

Potassium iodate supply

A visit was made to Kimia Farma, a Government-owned producer, who holds the monopoly on supply of potassium iodate in Indonesia. The production capacity of Kimia Farma is 60T per year, which is sufficient to meet the demand for iodate for all salt for human and animal consumption, assuming an average level of 60ppm in the salt. For household consumption only, the requirement for iodate is about 40T. Data of supply to KF's wholesalers, which shows considerable yearly fluctuation, show that over the period of 1997-2002, the average annual supply of potassium iodate is only 24.3T per year. That figure translates to only 60% of all household salt at production level being iodized. This figure is

not in line with the results of MOIT monitoring reports, which show that in 2002 85% of household salt at production level is adequately iodized. However, a conclusion on the discrepancy between the two figures cannot be made since on the one hand the assumption of 60ppm could not be realistic and on the other part of salt for food processing is being iodized.

The sale of iodate is realized through KF branches or Aprogakop at a price of Rp. 370,000 per 2kg (the only packaging quantity available). It seems that KF does not feel responsible for stimulating demand of potassium iodate. They simply depend on the demand expressed by purchases through their branches. For iodization of imported salt, an MOU has been established between MOIT and KF to allocate a quantity of potassium iodate to be supplied to each importer based on their quota.

Production costs and market prices

Naturally the bottom line for both farmers and producers must be that the cost of bringing the product to a next stage should be below the price fetched from customers. In a free market, they must make a profit commensurate with the efforts required. Although a determined effort was made to obtain some estimates of costs and prices, in the end we remained with a rather confusing picture. It would seem that the business side of salt production and supply in Indonesia is very competitive and complex.

As mentioned before, the quality of salt harvested by salt farmers is assessed by visual inspection. Depending on this judgment, salt is collected at the farm gate at a price ranging from Rp.60-80/kg for QIII, to Rp.100/kg for QII and Rp.150/kg for QI. These amounts do not compare with the price CIF for imported salt of $18-24/ton (or Rp.150-175/kg), but neither does the quality. As stated before, all these qualities require upgrading, and thus suffer up to 20% loss in bulk, before a comparison with imported higher quality salt from Australia or India can be attempted.

PT Garam in Madura quoted a price ex-warehouse in 50kg bags of $8-10/ton. Taking the quotes above, PT Garam would buy people's salt from farmers at approx. $14/ton (Rp.115/kg) prior to upgrading. PT Garam ships salt to Sumatera and Kalimantan at a freight cost of $9/ton (in 3,000-5,000MT vessels), where it faces competition by better quality salt imported from India at a price of $18-20/ton CIF Medan. Apparently the margin for PT Garam is either very thin or non-existent.

PT Garam is Government-owned, and it also has a "social function" with a high ratio of employees (overhead) and an obligation to buy people's salt at the aforementioned price. Quote: "On the basis of the same quality, we cannot compete with imported salt, because we are inefficient."

Following the logic on the sources of non-iodized salt, it is not surprising that low consumption of iodized salt is concentrated in the areas where raw salt is produced. In the Provinces where there is no salt production, the public authorities have control to ensure that all alimentary salt supplied for sales in the markets is iodized and the SUSENAS data confirm that iodized salt consumption is high in large parts of Sumatera, Kalimantan and Sulawesi. In salt production areas, however, there is availability of non-iodized salt and therefore households have a choice for their purchase. With a differential price between iodized and non-iodized salt, with the latter being considerably cheaper, household economics can often dictate the choices made. For example, in one District market visited, one liter of non-iodized raw salt was sold at Rp.300 compared to Rp.500 for a half kilo of iodized salt. However, the price of iodized salt varies from vendor to vendor. In a situation of choice, households can opt for cultural taste and preferences that the raw non-iodized salt satisfies. In more rural and poorer areas such as Nusa Tenggara and East and Central Java (commonly referred to as "black spots"), vendors often find it too expensive to invest in purchasing the iodized salt and therefore only avail the non-iodized salt to their customers.

One major motivation for not iodizing salt may be that the producers make a somewhat bigger profit from non-iodized salt than they do with iodized salt. In an uncontrolled market where there is no vocal demand for iodized salt from consumers, there is low motivation to assure its supply. Because the iodization of salt is entrapped in the elaborate salt processing (i.e. cleaning, drying and packaging), many of the smaller producers are reported that they cannot afford to purchase and maintain the equipment. In addition, the expense and effort needed to purchase and stock the minimum available quantity of potassium iodate (2 kg) may for small producers be a factor, particularly those who are located at a distance of the Kimia Farma outlets.

Monitoring and enforcement

Monitoring and enforcement by MOIT of the SNI standard for iodized salt does not appear to be conducted in a regular or systematic manner. MOIT should monitor the production facilities, while BPOM monitors at the market and retail outlets. In addition, District IDD teams also partake in monitoring at the markets particularly in priority Districts identified by national management (IDD focus areas). MOIT has officials in Districts, but the frequency of their monitoring is unclear and may vary from monthly to once every six months. MOIT collects samples from producers for tests by titration in their own laboratories. A producer in South Sulawesi reported that when MOIT finds that a company is not meeting standards, it conducts more frequent monitoring visits to the company. Nonetheless, non-compliance does not result in any repercussions on the company's license to produce iodized salt.

Summary of production and supply related issues

From the producers' point of view, the limitations of financial, legal as well as moral incentives to iodize salt are sizable. As mentioned before, there is little – if at all – increased profit in iodizing salt under the current circumstances and legislated requirements in Indonesia. MOIT policy mandates upgrading processes in order to iodize salt, requiring significant investment in technology by the investor, combined with up to 20% loss in bulk of the low quality of domestically produced salt. As such, the combined investments required for iodization significantly determine profit margins. Salt iodization *per se* may be more profitable (and is perfectly do-able) without the prior requirements of upgrading, by using simple technology such as manual spray, but cost-effectiveness analysis needs to be done to further explore a comparison.

The lack of legal incentive stems from a lack of, or limited and easygoing monitoring and enforcement practice. Monitoring is not conducted regularly. Moreover, when done, often no effective repercussion for violations against the legislation, i.e. the sales of non-iodized or below-SNI standard salt, is applied. Monitoring by MOIT needs to be regular, harmonized, and linked to repercussions. This can apparently not be done under the present national legislation. Development of appropriate transparent legislation, and its implementation and enforcement locally become therefore crucial steps to achieve universal salt iodization District-wise, and thus nationally.

It is rare that a producer will iodize salt only because of moral conviction. Legal and financial motives must be present and strong.

Aside from external monitoring by MOIT, quality assurance systems in production/processing facilities also need to be strengthened to ensure that the salt supply is meeting minimum quality requirements, including iodine levels[5]. Food processing industries can add to improved quality performance by checking the iodine content of the salt supplied by salt producers/processors against the specifications set in the purchase orders.

At present the USI program from the production aspect is heavily focused on upgrading the quality of domestic salt, sometimes resulting in ineffective technology transfer. Consumer demand for a higher quality household salt, and producer drive to upgrade the salt is not strong, however. For the short and medium term the alternative approach would be to focus on iodizing all salt for human consumption regardless of quality. Such an approach would need to embrace simple and low-cost methods, such as iodization through manual spray, and involve intermediaries such as the traders and collectors in the iodization process.

A focus on the raw salt flowing through traders and collectors can begin to minimize the leakage of non-iodized salt to households. The appropriate iodization technology for use by collectors/traders needs to be identified with technical assistance and monitoring to be provided by MOIT. In addition, a classification system should be established to distinguish between raw salt that needs to be iodized (household, animal feed and food processing salt) and salt that does not require iodization (textile and leather industries for example). Currently MOIT already requires all salt for industrial use to be packed in 50kg bags, but this system does not seem to work. As witnessed by the team in Bantaeng District, some of these 50kg bags reach the market and are split in smaller bags to be sold to the community as household salt. One idea is to provide and enforce the use of different-colored 50kg sacks for iodized

[5] See next Chapter for evidence suggesting important improvements that took place in QA during the recent past

and non-iodized salt. In theory, such a system would help to channel the two different types of salt to the correct customers and facilitate monitoring checks.

Though they still do deserve some attention, in particular concerning the quality aspect, large-scale producers in the opinion of the review team are not a significant source of non-iodized salt leaking to households. Also, they are increasingly using imported salt, as opposed to domestic raw salt, due to better quality. Quality awareness and emphasis in the salt productive industry generally comes along in association with an orientation on better value –and thus iodized- salt acquisition, marketing and sales.

Chapter II: Iodized Salt in Households

Household survey data

The Central Bureau of Statistics (BPS) conducts surveys of the use of iodized salt in households in Indonesia each year since 1995. The key observation consists of a rapid visual test, using a locally produced starch indicator solution. The recorded data distinguish non-iodized (<5 ppm; Tidak Ada), insufficiently iodized (5-30 ppm; Kurang) and adequately iodized salt (30 ppm and above; Cukup). An annual report displays the basic data per District, used for back-reports to District, Province and national leaderships. The sampling frame is District-representative and allows a classification of each District as to the percentage of households found with adequately (Cukup) iodized salt. BPS uses the following categories: 90-100% (green); 40-89% (yellow) and <40% (red). The ultimate aim is that all Districts should report >90% household use of adequately iodized salt (green), and as such the reporting system is considered a clear and telling instrument for the leaderships at each level.

A summary of the District data from the most recent survey is in shown the next Table. The basic data show the predominance of high achieving Districts in all Provinces of Sumatera and Kalimantan, and most Provinces of Sulawesi (excl. South Sulawesi), thus illustrating the fact that the Districts where household consumption salt is imported and directly processed (i.e. no local salt farming) mostly report a higher household use of qualified iodized salt.

Use of adequately iodized salt in households by District, 2002 [a]

Province	Total # Districts (townships)	Green >90% Cukup	Yellow 40-89% Cukup	Red <40% Cukup
Aceh	10	-	-	-
Sumatera Utara	19	6	13	0
Sumatera Barat	15	12	3	0
Riau	14	11	3	0
Jambi	10	8	2	0
Sumatera Selatan	7	5	2	0
Benkulu	4	4	0	0
Banka Belitung	3	2	1	0
Lampung	10	5	5	0
DKI Jakarta	5	0	5	0
Jawa Barat	22	1	20	1
Jawa Tengah	35	0	30	5
Yogyakarta	5	0	5	0
Jawa Timur	37	1	34	2
Banten	6	0	6	0
Bali	9	0	6	3
Nusa Tenggara Barat	7	0	0	7
Nusa Tenggara Timur	14	0	3	11
Kalimantan Barat	9	4	5	0
Kalimantan Tengah	6	5	1	0
Kalimantan Selatan	11	10	1	0
Kalimantan Timur	12	10	2	0
Sulawesi Utara	5	5	0	0
Sulawesi Tengah	8	5	3	0
Sulawesi Selatan	24	1	17	6
Sulawesi Tenggara	5	0	4	1
Gorontalo	3	3	0	0
Maluku	5	-	-	-
Papua	13	-	-	-
TOTAL (excl Aceh, Maluku and Papua)	305	97 (32%)	171 (56%)	37 (12%)

[a] Source: BPS, 2002

Exploring a link with producer performance

Pursuing the argument made above a little further, a comparison is made between the 2002 household survey data with the percentage of salt producers reported by MOIT to be complying with the SNI, i.e. the MOIT licensed industries that process and upgrade raw salt to >94.7% NaCl, and iodize adequately according to MOIT standard. This analysis is shown in the next Table.

Comparison of BPS and MOIT aggregate District information

Province	MOIT: Number of Licensed Salt Producers [a]	MOIT: **Percent** complying with SNI [a]	BPS: Districts with >90% HH use of iodized Salt
Aceh	16	50	-
Sumatera Utara	15	75	6/19 = 32%
Sumatera Barat	4	75	12/15 = 80%
Riau	5	0	11/14 = 79%
Jambi	2	50	8/10 = 80%
Sumatera Selatan	4	75	5/7 = 71%
Benkulu	2	100	4/4 =100%
Lampung	11	60	5/10 = 50%
DKI Jakarta	8	75	0/5 = 0%
Jawa Barat	83	53	1/5 = 20%
Jawa Tengah	69	80	0/5 = 0%
Jawa Timur	49	80	1/37 = 3%
Bali	4	75	0/9 = 0%
Nusa Tenggara Barat	8	25	0/7 = 0%
Nusa Tenggara Timur	6	25	0/14 = 0%
Kalimantan Barat	6	100	4/9 = 44%
Kalimantan Tengah	2	0	5/6 = 83%
Kalimantan Selatan	11	40	10/11 = 91%
Kalimantan Timur	3	75	10/12 = 83%
Sulawesi Utara	8	50	5/5 = 100%
Sulawesi Tengah	3	75	5/8 = 63
Sulawesi Selatan	42	50	1/24 = 4%
Sulawesi Tenggara	6	75	0/5 = 0%
Maluku	0	0	-
Papua	3	0	-
TOTAL (excl Aceh, Maluku and Papua)	351	218 (62%)	97/305 (32%)

Recapitulation by Province

	MOIT: Percent salt producers complying with SNI	**Number of Provinces** (excl Aceh, Maluku and Papua)	**Districts** with >90% HH use of iodized Salt
	0-25% (**red**)	4	16/41 = 39%
	26-50% (**blue**)	4	24/50 = 48%
	51-75% (**pink**)	9	44/76 = 58%
	76-100% (**green**)	4	9/54 = 17%

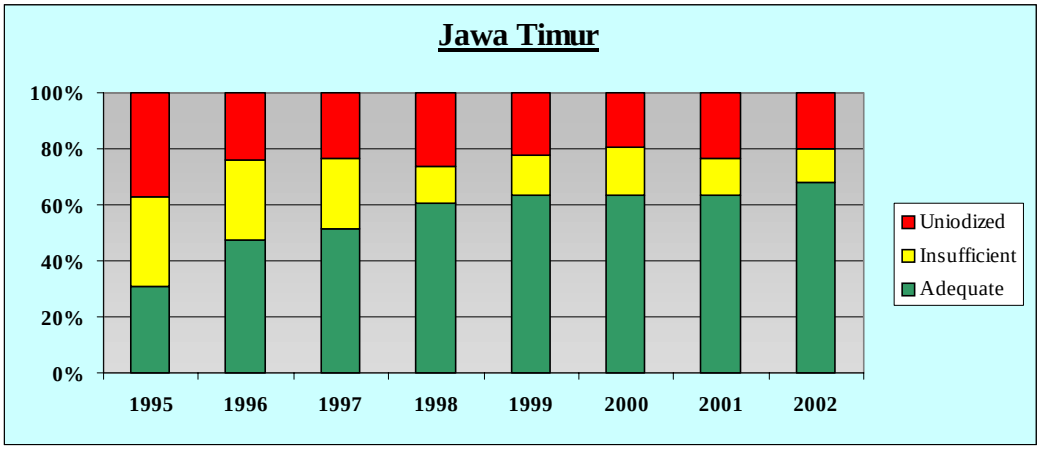
[a] MOIT report, 2002

In terms of % of producers in Districts reported by MOIT to be in compliance with SNI, an association is seen initially with the %Districts where >90% HH use of adequately iodized salt. Above the 75% level of MOIT recorded performance, however, the relationship holds no longer. This is due to the large number of Districts on East and Central Java, where MOIT reports >80% of producers reported in compliance, but where a large percentage of households is not using iodized salt. The explanation for this lies in the fact that in these areas, raw "people's salt" is entering markets and households directly from salt farmers without processing in MOIT-licensed salt industries. These Districts therefore are seen to perform in the same way as Districts in Nusa Tenggara, where many salt industries despite registration by MOIT have low compliance with the SNI.

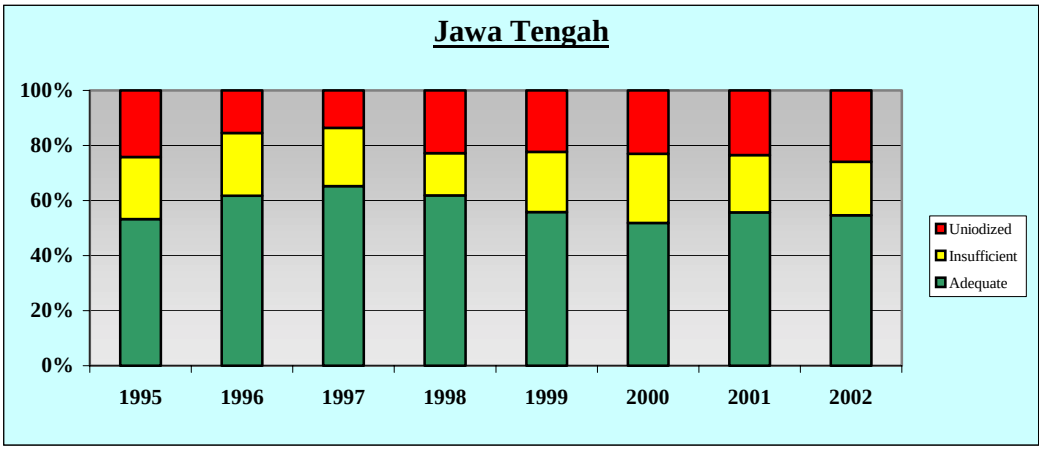
Trends in time of household iodized salt use

Given the analysis above, the key feature for further focus is on those areas where iodized salt use in households is relatively low and many households are seen to still use non-iodized salt. For these areas, the following graphs illustrate the trends in time since 1995, based on the annual BPS surveys.

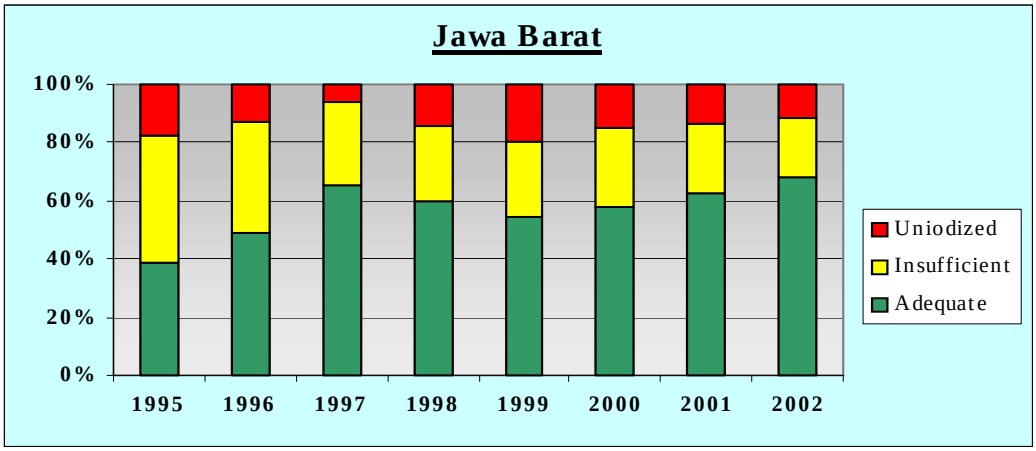
East Java: The %adequately iodized salt use in households has improved since 1995, but leveled off during the last few years. Still 20% of households do not use iodized salt, constituting 8 million people.



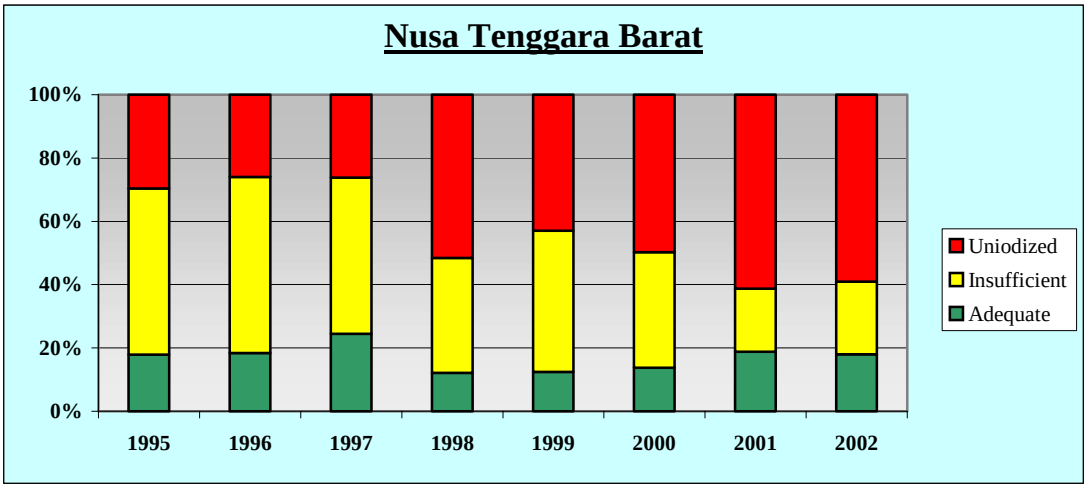
Central Java: %non-iodized salt varies yearly and remains above 20%, affecting 7.3 million people.



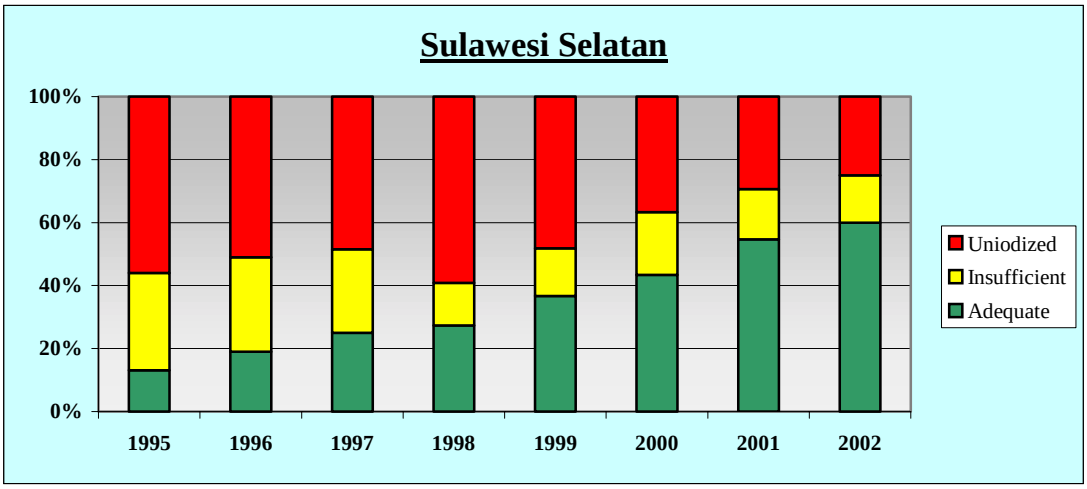
West Java: %adequately iodized salt use has improved, but 5 million people are not yet served.



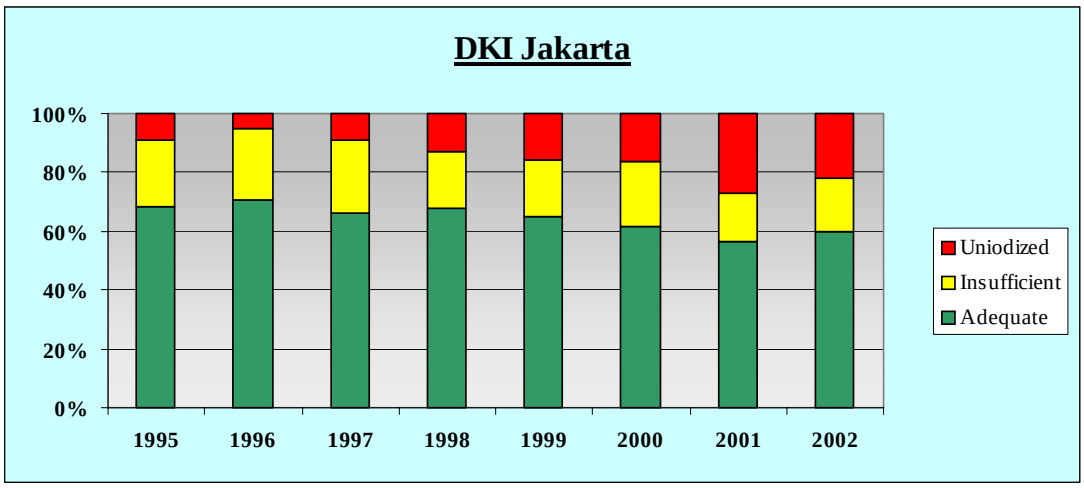
West Nusa Tenggara: While %adequately iodized salt has remained near 20%, %non-iodized salt is increasing with 2.4 million people not yet reached.



South Sulawesi: Steady improvement in %adequately iodized salt, and present achievement similar to Provinces on Java. Still 2.3 million people do not use iodized salt.

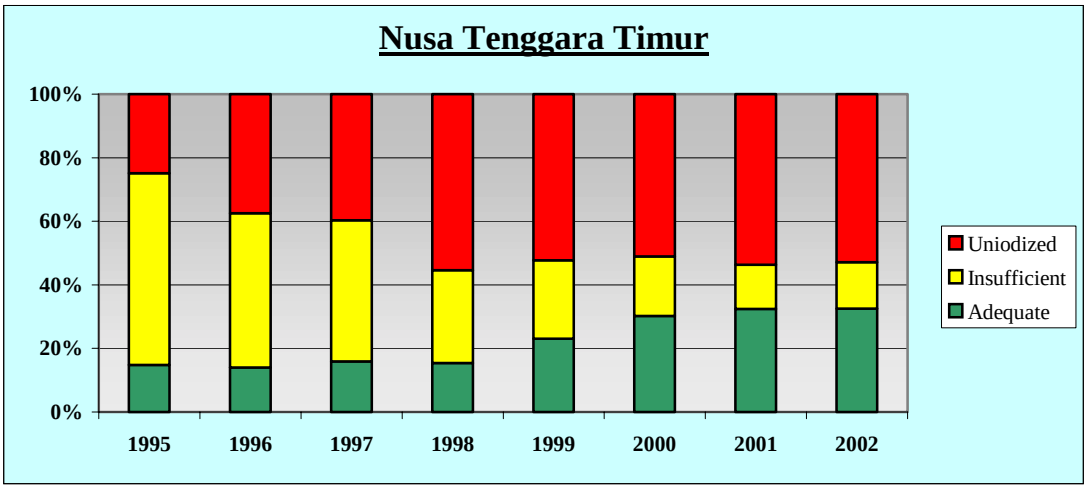


Jakarta: %non-iodized salt has slowly increased to >20%, presently 2.3 million people not using iodized salt.

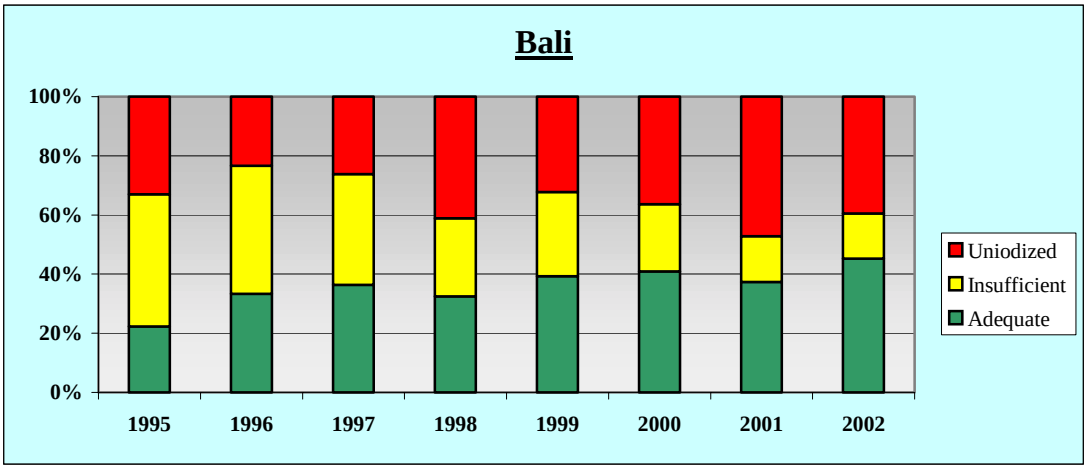


Banten: This Province was previously part of West Java. 2.2 million people not yet using iodized salt.

East Nusa Tenggara: 50% non-iodized salt remained steady for the last 5 years. This affects 2.1 million people.

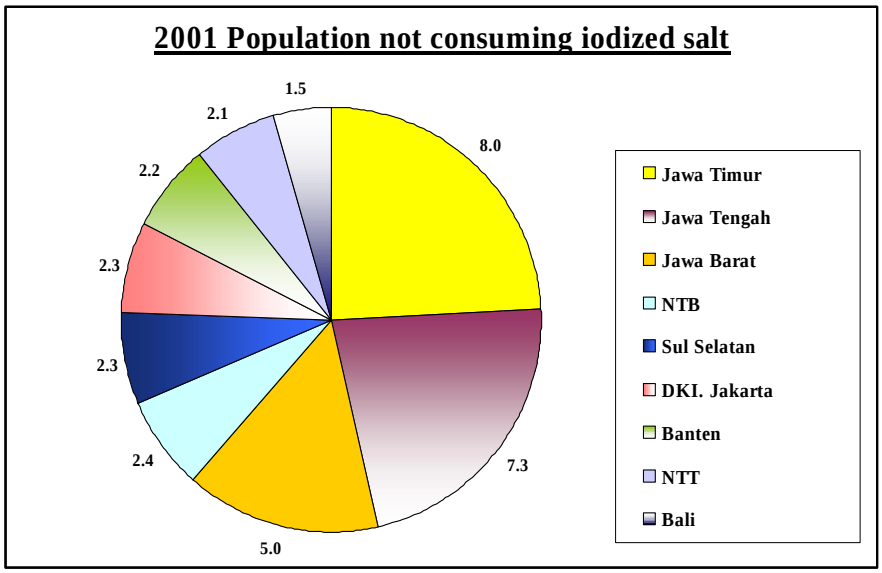


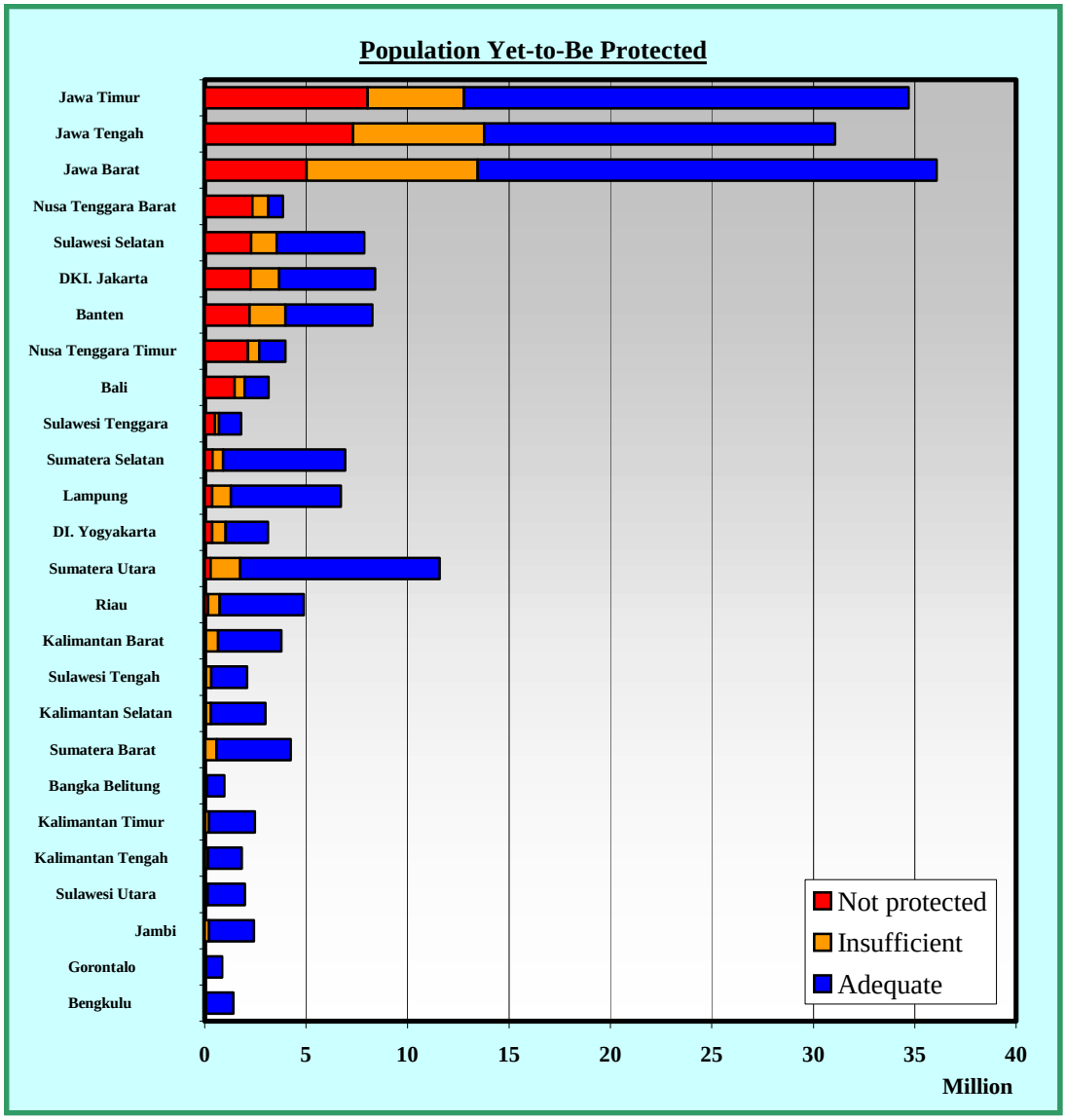
Bali: Only slow increase of %adequately iodized salt. Presently, 40% of households, or 1.5 million people, do not use iodized salt.



Population size affected

Indications of populations size affected are given in the description above. The next two Figures put these numbers into perspective.





Summary of findings and issues related to household salt use

Results from annual District-representative surveys of the use in households of iodized salt in Indonesia demonstrate the impressive progress toward USI. The annual survey reports also allow pinpointing of the locations where additional efforts may be focused to meet the IDD elimination goal through the agreed-upon strategy. Combining the information of locations where the major domestic salt harvest takes place (previous Chapter) with the BPS survey data of household iodized salt use and population sizes (this Chapter) allows a conclusion that accelerated efforts toward achieving USI should focus on those Districts in Java, Nusa Tenggara and South Sulawesi where people's salt is produced and leaking into household consumption without a prior step of iodization.

The trends in time of BPS survey results indicate that the progress in these Provinces has followed a somewhat different pattern from location to location. The patterns on Java -East and West particularly-, South Sulawesi and East Nusa Tenggara suggest that assurance of quality in salt producing/processing enterprises has improved. In other words, the combination of efforts by the registered salt enterprises and the public monitoring partner agencies generally leads to a reduction of inadequate iodized salt being offered to consumers– i.e., when iodization is taking place it is more often done well. But the crucial issue remains that despite nearly a decade of efforts by partners, large populations of Indonesia, mostly -but not exclusively- located on Java, still avail of non-iodized salt for their household use. In other words, in too many Districts in Indonesia salt is still bypassing the channels of bona-fide salt enterprises and escaping the oversight enforcement by public monitoring partner agencies.

Chapter III: Advocacy and Communication

Within the context of communication, three elements can be most effective: (a) putting in place a legislative framework that shapes an enabling policy environment, (b) increasing the immediate use of iodized salt in households and (c) cultivating sustained use of only iodized salt.

Legislation affects the supply of, access to, and use of minimum quality iodized salt. Achievement of an enabling policy should therefore be an integral part of any program communication effort. To achieve the stated goal requires some actions that will quickly turn around the levels of household consumption of iodized salt by creating a significant demand. In addition, a healthy nation that sustains the use of only iodized salt by each next generation requires communication efforts that ensure an educated and health-conscious population.

Creating/Developing a Supportive Environment
After the Presidential Decree and attendant regulations had been in place for some time, the frustration and disappointment among stakeholders, including UNICEF, has grown over the apparent ineffectual nationally devised enforcement system. It is not clear which Government agency or agencies have the responsibility for enforcing that non-iodized salt is not accessed by consumers, and there are no clear penalties or repercussions for those who transgress the intent of the national commitment. In the case of the small farmers, some cultural resistance seems to exist out of "guilt feeling" about victimizing the "small fish". The prevailing sentiment seems to be that the salt farmer is barely scrapping a living and under the present conditions of economic hardship, it is felt not acceptable to spoil their livelihood.

For example, MOIT is responsible for issuing licenses and appears primarily concerned with oversight of the manufacturing process of SNI salt, which includes iodization. On the other hand, MOIT does not concern itself with either producers (even if licensed) or salt farmers who directly supply markets with non-iodized salt. BPOM, which is concerned with inspecting salt in the market place, has no power to revoke a license. Aprogakop has no authority to insist on members or non-members to iodize their salt. In the event where BPOM or Aprogakop identifies offenders, they write to the offending processor and report to MOIT but often no remedial action is taken. In the rare occasions when a salt producer loses a license, the licensing process is such that they can quickly obtain another license and operate under a different name. BPOM is tasked to monitor salt in markets, but like MOIT, its authority does not include the prohibition of non-iodized salt sales. In an attempt to start addressing the situation, the Chairman of Aprogakop reported that it wrote letters to MOH, MOIT, Parliament and UNICEF without apparent success.

UNICEF has seized the opportunity of the decentralization policy to support legislation at District level, where the power for enforcement now lies. Development and enactment of a Local Act, or Perda, is the responsibility of the District Governor (Bupati), in policy dialogue with the District Parliament. For example in South Sulawesi, four of the five Districts that UNICEF supports have District acts in place, aimed at banning the sale of non-iodized salt in the market. Unlike at the central Government level where enforcement mechanism and responsibilities are not very effective, the Districts have developed an enforcement mechanism that may be made to work well.

For example, in Jeneponto District in South Sulawesi, a four-pronged approach will be applied. The first will make salt industry aware of the regulation and the consequences attached to transgression. The second step will involve the removal of non-iodized salt from the market place, to be returned for iodization to the first time offender. On second offence, the non-iodized salt is confiscated and not returned. A third offence will earn a suspension from dealing in salt. The District has allocated Rp.1 billion to the activities that will sweep non-iodized salt form the market. In addition, the IDD team led by the District Health Officer currently undertakes a sweeping exercise in markets four times every year. In the markets visited in this District, strategically placed billboards were noted that inform the public that the sale of non-iodized salt is prohibited. The team's advise is that UNICEF should seize this chance in which commitment for the "home grown" is still high and support the local enforcement.

To keep IDD and USI high on the public agenda, UNICEF supported a visit to Indonesia in 2001 by Roger Moore, UNICEF Goodwill Ambassador on IDD elimination. Apart from meeting with the President and other high-ranking Government and political leaders, as well as selected salt producers, the visit by Roger Moore generated significant press coverage. The trip was coordinated by PRISMA, a

private local public relations firm subcontracted by UNICEF. While the immediate outcomes of the visit are well documented, the extent of follow-through efforts from the visit by UNICEF or any partner was less clear in communication or otherwise, so as to further enable the policy or strengthen the existent enforcement systems, for example. UNICEF has also supported the development of an advocacy kit for use at national and District levels. The kit includes data on goiter rates among school children as well as the current rates of household consumption of iodized salt.

Increasing the use of iodized salt

The media environment in Indonesia offers a wide variety of communication channels. Radio is available to most people in the country. Television is also widely watched. Even where TV set presence in households is low there are opportunities for communal watching. Newspapers have a much more limited reach, especially in rural areas, outside of District capitals.

Although not yet universal, the knowledge of importance of iodized salt has been shown to be rather high nationally (72%). Among the urban population about 82% know the importance of iodized salt according to a 2002 survey, while the knowledge in rural areas is 63%. The Provinces where the public knowledge falls below the national average include West Nusa Tenggara (56%), East Nusa Tenggara (66%), South Sulawesi (64%), Central Java (60%) and East Java (67%) – areas also identified in earlier Chapters for their relative lagging progress toward USI. A significant proportion (44%) of households reported that they obtained their information from the mass media, but interpersonal sources are important also: 11% from health workers, 17% from neighbors, 13% from schoolteachers and 11% from PKK. In addition to mass media, therefore, word of mouth appears a powerful means of getting the information transmitted to the public in Indonesia.

Research shows that there are three reasons why people do not use iodized salt. About 26% say that iodized salt is not available, 20% mention that they do not like the taste and 18% say that the cost is beyond their means. The research categorizes some 36% as giving "unclear reasons" an indication that more qualitative research might be needed. More households, particularly in the rural areas, prefer the raw and block salt (54%) compared to those who prefer the refined version (45%). Wet markets and shops are the key suppliers of household salt in both urban and rural areas (over 90%).

Mass media activities have utilized the mix of media available in Indonesia. TV spots aimed at different audiences have been developed, as has radio spots. The TV spots have featured a famous and easily recognizable young entertainer, Ulfa. The spots are aired as Public Service announcements (PSAs) and therefore the time of airing is not always under the control of the program. The Health Promotion Department of MOH has been running a mass media campaign for two months every year since 1996 with funding through the World Bank loan. There has been no evaluation on the impact of these efforts, however.

A variety of print products in local language, including pamphlets, brochures, billboards, stickers, T-shirts, caps, etc. have been developed by the different partners but there seems to be low coordination on development and use of these materials. For example, a pamphlet developed by the MOIT and another one by MOH carries very similar information. The distribution system for these materials seems weak. Materials are mostly developed at central level and not readily available in the Districts. For example, a sticker developed for stores carrying iodized salt has been developed but in visiting retailers in markets in several Districts, the Team did not spot any of the stickers. Many of the materials are meant for use by health and social workers but are also distributed for public consumption.

UNICEF has supported the development of a national Logo with the slogan "Iodized salt makes children intelligent". This logo and slogan has been used by some iodized salt producers and put as a label on their packets. Other salt labels do not carry the label, however. Other labels have used the same logo with a different slogan, e.g. "Improve your intelligence and prevent IDD". It was not clear whether the Logo was intended as a branding for iodized salt. If it was, then the effort has yielded limited success. If it wasn't, then it has become a symbol that risks abuse, possibly by manufacturers who mean no harm. It is also interesting to note that many salt packers provide an explanation on the benefits of iodized salt at the back of their packets. One of the more commonly stated benefits is the reduction of infertility.

UNICEF supports communication work through several women's groups (PKK, Fatayat Nu and Ati Ansyiah). PKK is the national women's group that has a presence at all levels, national, provincial,

District and grassroots. At national level, the head of the PKK is the wife of the Minister of Health. At District level the wife of the Bupati is the head of the movement. In the community, a PKK volunteer cadre is responsible for ten households (Posyandu) to educate and inform information of ten key health issues, including IDD elimination. PKK is a member of the IDD teams at national, provincial and District levels. PKK therefore has great potential both as an advocacy partner as well as an influencer at community level. UNICEF has an MOU with Fatayat Nu and Ati Ansyiah, two main Moslem women's groups in the country. These groups also have grassroots presence and the support of the religious authorities.

PKK cadres are involved in salt testing at retail. They inform communities on the salt brands that carry reliable iodized salt and advise them on where to purchase it. In areas where iodized salt does not penetrate (the "blind spots"), PKK members have been used by the IDDC project leadership to supply iodized salt and some successes have been reported, for example in East Lombok. PKK cadres are also involved in school programs, such as school feeding and have the potential to be a major link between schools and the community.

In communities, midwives and traditional birth attendants (TBAs) assist women in childbirth and provide health information and services on family planning, female health issues, counseling for breastfeeding, etc. TBAs are generally well respected by the population and >50% of deliveries are assisted by a TBA. The midwives are part of the Ministry of Health system and are better trained. The midwives tend to be younger and are often considered as "outsiders" in the community and therefore command less respect than the TBA. In the ideal situation, the midwife and TBA work in tandem.

MOH has developed a model for social empowerment and enforcement to be used at community level. The model is based on a dialogue rather than top-down approach to communication. It promotes the notion of social empowerment as a strategy to bring about broad social change and to give people a voice to claim their rights. With WB support, MOH has developed a training guide on social enforcement for capacity development among community workers. As an organization that promotes a Human Rights Approach in programming, UNICEF should support this initiative, especially as the World Bank funding may be coming to an end. What the community groups need are initiatives that strengthen local capacity, including training in facilitating community dialogue. Other UNICEF regions, particularly ESAR[6] have developed community dialogue tools that could be adapted. Study tours to communities that have met with success could be a useful method of strengthening capacity.

Iodized salt is a commodity that is sold openly in the wet markets and stores and, therefore, a message that states that iodized salt leads to "better health" is not enough as it confines iodized salt to the realm of a supplement and that more of a supplement is a desirable thing among the population. This is not the case with salt. The perception that iodized salt is a supplement will result in continued abuse as iodized salt producers compete for a market share. Salt manufacturers and other stakeholders should be involved in refining the message so they can have a sense of ownership in order to reduce potential message abuses.

Cultivating Permanence of Iodized Salt Use

UNICEF has supported a series of efforts aimed at ensuring that the use of iodized salt enters into the habitual norms. These include integrating IDD education in primary school curricula, including school children testing of household salt, while engaging NGO's, and involving TBAs, community cadres and midwives in community education activities.

With supply of rapid test kits through MOH, school children bring salt from their homes and test it for themselves whether it is iodized or not. Through the Association of Teachers, a curriculum for primary school students has been developed and is in use. These efforts ended in 1998. While investments may be huge, school programs have the advantage of involving millions of children. In Indonesia, about 85% + students are enrolled in primary school.

Knowledge on the dangers of IDD and the benefits of iodized salt is also integrated in the training of nutritionists, midwifery and nursing as well as medical doctors since 1997/8. PKK cadres are often given some orientation on these aspects. Guidelines and support materials for health workers has been

[6] Neil Ford in ESARO has developed these tools for stimulating community dialogue on IMCI

developed by MOH. Insertion in educational curriculums of other professions needs consideration, for example the business, technical and academic schools.

UNICEF is often involved and supports activities that change social norms, in the case of the present issues with the aim of empowering communities to insist on only iodized salt. In this regard, religious leaders could play a very important role. Religious leaders are respected and exert influence in all communities. They have the knowledge, experience and wisdom to couch messages in a manner that people understand. Programs in Indonesia that have had support of religious leaders have met with tremendous success, for example, the Expanded Program of Immunization and Family Planning.

Some communities believe that the mental retardation from cretinism is a curse from God and therefore any information presented from a nutritional perspective would have little impact and only messages based on religious faith and inserted in religious teachings would make sense to these groups. Apart form the women's groups, religious organizations attract a significant number of young people. For example, the Moslem religion supports a youth NGO that works with university students to help rural communities. In addition religious organizations have funds that could be mobilized for collaborative efforts toward IDD elimination.

Summary of advocacy and communication issues

Communication activities can offer effective ways to help put in place enabling policy, increase the preference of using iodized salt toward universal, and cultivate habitual norms that lead to permanent IDD elimination. Under the present policy of decentralization, the USI strategy requires effectuation at local as well as national levels. The history has shown that with the present national policy Indonesia only, the stated goal is not achievable. The immediate need is to work with Districts and below and seize the new opportunity of their authority and empowerment to make true on the vision that all salt used by consumers is iodized. People's salt in its current form is what Indonesians have used for centuries, and ways should be found to add iodine to the current product, i.e. the one they know, trust and like. Capacity development in Districts brings focus to the dual responsibility –District and national leadership- in program operation.

In addition to policy, also consumer education and habit formation are elements that require a focus on those who work in Districts and have direct access with ultimate end users. Messages need sharpening and unity in conveying the essential key fact that is meaningful for all actors: "Protect the brains of babies." Channels need involvement by the religious leaders and their organizations. Word of mouth is an important information channel and faith is a powerful support. The capacity of District leaders, Parliament, line officers as part of IDD teams, and other local entities such as TBAs, PKK and others in advocating and mobilization must be strengthened – the Jeneponto District example is powerful and needs replication elsewhere. Approaches to enable communities to monitor in Districts are needed – work has started and needs expansion to rally school children around USI. The insertion of learning about the dangers of IDD and benefits of iodized salt in curriculums must expand and be consolidated. And counsel from national authorities can make such actions in Districts work more effectively, and in concerted ways. The way to provide counsel and proceed with such actions is through dialogue, both between Districts and national leaderships, among the District organizations and workers who reach into communities, and within communities themselves.

Chapter IV: Development of Policy and National Capacity

Legislation
The Ministerial Decree in 1995 from MOIT gives the technical criteria for processing, packaging and labeling of iodized salt. The national standard states that household salt must be iodized salt with NaCl content above 94.7%, and contain 30ppm iodine. Packaging of iodized salt should be adequate to protect the content of iodine and ensure the quality and stated weight with any appropriate substance and technology. Labeling should include the SNI number, name of the company and other required information for trading. Attachments of the Decree give the specifications for basic salt, iodized salt and technical notes on processing, iodization and packaging.

Although the Presidential Decree stated that ***all*** household salt must be iodized, the above description means that the MOIT Decree sets criteria that apply to only iodized salt, rather than for ***all*** the salt that people consume. Thus, in following-through on the national commitment stated by the President, a gap remained between the intent of the Presidential Decree and the enactment by MOIT. By the follow-up Decree, salt iodization efforts were made conditional on salt quality upgrading efforts. Nationally, no legislative method or instrument has been put in place that concerns the prevention or prohibition of household salt that is not iodized. This situation essentially allows for people's salt to be directly passed on from salt farms to the market to consumers, with no form of processing. And there is no legal method or instrument to prevent non-iodized salt from being sold to consumers. As far as national legislation is concerned, the raw salt sold by salt farmers and in markets for household consumption is currently "no-man's land."

Complementing the national legislation and addressing this issue, Local Acts or Perda have been developed in several Districts. Some are better than others but in Indramayu, for example, legislation is entitled "Prohibition and Control of Distribution of Non-Iodized Salt." Another example is the legislation in Cirebon, called "Prohibition of Distribution of Non-Iodized Salt for Consumption." The subject of the local legislation, therefore, concerns all consumption salt in the District accessible for purchase by consumers.

An example of Perda in Jeneponto is given in the previous Chapter. To quote the Perda of Indramayu (Sept. 2001): "Any person or company is prohibited to distribute salt without iodine for the purpose of consumption in the District. In addition, it is prohibited to import or export from the District non-iodized consumption salt, except for industrial salt. Any person or company is prohibited from producing non-iodized salt for human consumption, cattle feed, fish curing and food industry. The exception is farmers who produce salt for industry purposes." Implementation will be by the Bupati who will establish a commission to control salt distribution. The commission consists of program Government officials, police, public prosecutor and Justice as well as civil society under the coordination of Division of Security and Order of the Government of Indramayu. MOIT is assigned to undertake the control and enforcement of processing, packaging and labeling of salt. If non- iodized salt for consumption is found in markets, shops and other places, the assigned official has the authority to confiscate and penalize the distributor according to the sanctions under this legislation. Bupati has the authority to close market places, and to cancel permits if inspection visits indicate the existence of non-iodized consumption salt. Penalty is jail for 3 months and fine of maximum Rp.5 million. Coverage of iodized salt in Indramayu was 43% in 2001 and 55% in 2002.

Authority of Governance
While the decentralization policy has passed governing authority to the District level, the Ministry of Home Affairs (MOHA) maintains an oversight, guidance, coordination and supportive role. MOHA sees it as one of its mandates to guide policy development and advocacy to support good governance in Kabupatens. Public health is a concern of the MOHA, and for example MOHA has been involved with advising Kabupatens on immunization campaigns such as polio. MOHA recognizes that in the post-crisis era, public health and social issues are often not a priority and it aspires to a role in persuading stronger action on these issues in the Districts.

In addition to the influence that the MOHA can have on District governance, MOH is preparing Government regulation (PP)[7] mandating the District authorities to provide certain basic health services. The guideline on health development planning, which is part of the proposed regulation, will include 10 categories[8] and under the category of nutrition, the Kabupaten will be required to ensure access to iodized salt[9]. Kapupatens are required to plan the allocation of a budget to these mandatory services and to report on performance indicators annually[10]. The Act will greatly support the development of Perda in Districts to prohibit iodized salt and it will also facilitate the continued monitoring of permanent progress towards USI.

Monitoring and Surveillance

Indonesia has focused its national IDD surveillance and assessment systems on measuring total goiter rate among school children, with attention at sub-District level for identifying "endemic pockets". In the history of IDD elimination, several national surveys[11] have been undertaken in order to map the goiter prevalence in this fashion. These surveys offer a historical data series that makes the reduction in IDD visible for leading policy makers. The goiter data have also been used continually for targeting iodized oil capsules to "high-moderate endemic areas", however. Goiters take a long time to grow, and not all individuals who go through a period of iodine deficiency will grow a goiter. Moreover, once iodine deficiency is being alleviated, goiters have low response in shrinkage back to normal size[12]. Thus, the continued use of iodine supplements by using historical goiter rates while iodized salt use is increasing is rather questionable since it implies risk of additional iodine supply while it is not needed[13]. In addition, it could be argued that the efforts and resources for this component divert attention required for determined pursuit of the agreed-upon sustainable strategy, USI. In essence from using these data, Districts are being classified by historical iodine deficiency and not on basis of their current iodine nutrition status. The observation was made that the impact assessment of the WB assisted IDDC project will conduct sampling again based on these historical sub-District goiter levels.[14] In contrast, for classifying iodine deficiency status it is recommended to use urinary iodine excretion levels.[15]

Indonesia has a very valuable data time series on the use of iodized salt in households, representative at District level. Since 1995, a test on the presence of iodized salt in households has been included in the annual core module of the socio and economic survey SUSENAS. Initially funded by UNICEF (for approximately $100,000 per round), it has been funded through the WB loan since 1998. In recent years, SUSENAS has also collected data on underweight rate and MUAC levels in reproductive age women in order to monitor the impact of the economic crisis. The total cost of adding the three measurements is about Rp.4 billion/round. How these data will continue to be collected from 2004 onwards is still not determined (the WB loan will stop at the end of 2003) but there are indications that it will be funded through the MOH Nutrition Improvement budget.

There is widespread recognition that the household use of iodized salt is valuable data, and focused on the real issue of strategy implementation to alleviate the underlying cause of IDD –namely, iodine deficiency- and that the data are worth collecting every year. A recent WB review mission proposed the

[7] The hierarchy of legislation is: Constitutional Law (UUD45), Parliamentary (TAP MPR), Act (UU), Government Regulation (PP), Presidential Decree (Kepres) and Local Act (Perda). Note that there are no longer Ministerial Decrees.

[8] Basic services, referral systems, health systems support, control of communicable diseases, nutrition improvement, health education, environmental sanitation, supportive health services, prevention of drug abuse and response to community complaints.

[9] The draft act unfortunately also states that each Kapupaten must provide iodized oil capsules to women of reproductive age.

[10] The indicator for the iodized salt is % villages consuming iodized salt. This is believed to be a mistake – the indicator is probably % households consuming iodized salt.

[11] A first national survey was completed in 26 Provinces in 1980/82, a 2nd survey (impact evaluation of the IDD control program) was done in 26 Provinces in 1987/90, a 3rd survey was undertaken in 5 Provinces in 1993 and a 4th survey (known as the second national survey) was undertaken in 27 Provinces in 1995-1996 and 1997-1998.

[12] This has been well documented in the literature since 1995 from studies in China, South Africa and Indonesia.

[13] Interestingly, a publication from Diponegoro University in Semarang, Central Java, also draws attention to this issue. See: Thyroid Vol 11, No 4, page 365-372, 2001

[14] As the WB support to the Intensified Iodine Deficiency Control Project is coming to an end in December 2003, an evaluation will take place that includes an assessment of IDD status change nationwide as well as a project component evaluation.

[15] WHO/ICCIDD/UNICEF Expert Consultation, 1999

idea of incorporating the salt test with the health module of SUSENAS, which would mean collection every three years only, and moreover, down to provincial level only. If this proposal is followed, the usefulness for District planning and decision-making will be seriously limited. At the time that USI has not been achieved and household information should drive priority setting and decisions –particularly in Districts-, this information should be collected more frequently and locally than at a later stage where household information would in essence serve to confirm the permanence of USI.

The annual data from the SUSENAS are supposedly available to Kapupatens but it seems likely that distribution and use of the data has not been optimized. At the central level, it is often displayed as a series of maps to enable the identification of low performance Districts as red (<40% of households with iodized salt). Green Districts have high coverage (>90%) and intermediate Districts are yellow. The red Districts are often Districts with, or in the immediate vicinity of, salt farming. It is recognized that interventions to increase the production, supply and use of iodized salt should focus on the red Districts, i.e., Districts with low use of iodized salt and high local raw salt supply.

BPOM food inspectors, based at provincial level, currently measure salt iodine contents in markets by sampling branded salt and identifying brands that are adequately iodized, inadequately iodized and non-iodized. Letters of warning are written to producers of brands with inadequate or no iodine and WB reports indicate that the number of warning letters sent out went up from 573 in 2000 to 3,959 in 2001. This was probably due to an improved monitoring system rather than a dramatic reduction in the quality of iodized salt. It should be noted that at least a significant amount of the inadequately or non-iodized salt is due to 'counterfeiting' of popular brands by less scrupulous producers.

Beyond sending out letters of warning, BPOM takes little further action to penalize non-compliers. Data collected by BPOM is published in an annual report, which lists the brands by Province and indicates the proportion of samples adequately, inadequately and non-iodized. Currently this system is being funded from the WB project. In future, BPOM will maintain the monitoring system through its own budget but will reduce the number of samples.

BPOM admits to doing little to control the sales of non-iodized, and thus often non-branded, salt. Although they occasionally test raw salt in the market, they admit to not knowing how to handle it within their sampling system. Also, there is no way to calculate the amounts and proportions in the market. Additionally, tracing back to the source of the raw salt cannot be expected (e.g., to send a warning letter) since this type of salt is not branded.

BPOM is in the process of training 6,000 ministerial staff as food inspectors who will work at District level and currently 1,200 have been trained already. Each District will have 15-20 food inspectors with the authority to inspect salt in the markets. If the District has a local Perda, such information could be used for enforcement.

Programming effective intervention in Districts

Effective IDD elimination requires three elements: A well-defined goal, an enabling policy and an effective program strategy. The USI strategy expressed by the 1994 Presidential Decree: "All salt consumed by humans should be iodized" is a necessary condition for achieving the national goal of sustained IDD elimination. The follow-through legislation on iodized salt by MOIT, however, did not sufficiently address the issue of "universal" but focused on capacity of salt producers to upgrade salt prior to iodization. In an economy with positive growth this may have been a successful approach, but in the mean time, Indonesia has been affected as other Asian countries by an economic downturn that still hasn't been overcome. The recent policy decision to decentralize governance to Districts offers an opportunity to effectively close this gap by the sustainable approach of USI.

To make program operations in Districts effective and meaningful, three essential components must be made to work together at District level: information, communication and strategy implementation. The strategy agreed-upon is that only iodized salt should be used in households. This requires prohibition of sales of non-iodized people's salt in the markets (as well as prohibition of imports from other Districts) by local Perda. Communication encompasses all the efforts to generate political support (advocacy) and fund allocation in the District, as well as to strengthen broad acceptance by the District actors and public of only iodized salt, through health education and product promotion. Information from monitoring and observation will help the District leadership to make informed decisions on reaching

USI and assuring permanent progress toward IDD elimination.

Summary of Policy Enabling issues

The national policy instrument put in place by the Presidential Decree was a necessary condition but, in follow-up, the MOIT Ministerial Decree has been insufficient for the past 8-10 years for Indonesia to achieve USI. The dominant policy weakness is that despite the intent expressed by the President that all salt should be iodized, the MOIT Decree focused on salt iodization only after technical quality upgrade. In other words, the national quality standards first required the attainment of minimum salt quality and only then specified iodization. This conditionality is putting a burden on the salt industry that is at a comparative disadvantage due to the poorer climatic conditions. The annual BPS surveys show that a proportion of salt flowing through the channel of certified industries still remains non or inadequately iodized, but more importantly, that about 20% of salt eaten in households of Indonesia has remained outside the producer/processor channels that work toward a formal national standard for iodized salt. This issue could be addressed by enacting District Perda, and examples are now available for analysis and dissemination to other Districts. The steady recent improvement toward USI in South Sulawesi is testimony of effective complementary Perda. Guidance and assurance from the national Government authority of a focus on USI toward the Kabupaten and Bupati is an essential element.

In addition, the District planning and effectuation of policy stated in the Perda requires decentralized information at a frequency that allows meaningful decisions. The present annual SUSENAS surveys are an excellent source, and require continuation but also rapid sharing of results with District planners and implementers. More diversified classification of USI progress from the data on %use of iodized salt in households would be more meaningful for District direction.

The terms of reference for this review were focused on USI with particular reference to the ways and means to effectuate the USI strategy, which is internationally and nationally agreed-upon as the essential and sufficient strategy for national IDD elimination. The mission, therefore, did not attempt an in-depth assessment of the continued, supportive iodized oil supplementation component. Nevertheless, the mission questions the resources and attention still directed to this component as part of the overall endeavor. The major reasons are that supplementation tends to detract the understanding from the real issues (e.g., focus on treatment rather than prevention, goiter rather than iodine nutrition, and endemic “pockets” rather than the national population), and that the continued provision of supplements diverts human resources, is targeted on basis of historical data rather than current trends and problems, and introduces bias in overall monitoring – thus putting the entire endeavor at risk.

Recommendations

This section summarizes the recommendations of the review mission, taking into account and expanding upon conclusions that were part of the chpters that described the findings of the mission. A next section will offer the review mission recommendations for UNICEF's assistance in Indonesia to accelerate the progress toward sustained IDD elimination.

A. Recommended directions for national leadership

1. **MOIT should develop a plan to address the leakage of non-iodized salt to households through ways of direct iodization**
   - The main leakage takes place because collectors/traders obtain and bring together raw salt from people's farms and pass it on to markets without iodization. The plan should consist of innovations to iodize salt in a proper way on a (very) small scale, directly using the raw salt harvested in people's farms (i.e., without the upgrading now required as per SNI). This implies also that collector/traders must have a way to separate their supplies of iodized salt for consumption from salt supplies to other applications that do not require iodization, mainly leather & textiles
   - Since the existent monitoring routines do not oversee that part of the salt flow, the plan should include a cost-effective way of rapid checking of salt that is iodized at the premises of the collector/trader, while accepting the fact that salt collected and traded as described will mostly not meet the SNI for minimum salt quality. The national objective, however, is that all the salt supplied for human consumption is properly iodized. The most recent revision of MOIT regulation seems to indicate that MOIT is leaning more towards acceptance of this approach

2. **MOIT should undertake an analysis of the national salt industry development policy, taking into account the world experiences in universal salt iodization**
   - MOIT to use information of world salt market development in making policy decisions on short, medium and longer-term policy of domestic salt industry development in Indonesia
   - In collaboration with others, MOIT should work with salt producers in promoting their brands of iodized salt. An approach that goes beyond social marketing would be necessary[16]. There is value in convincing producers that there are opportunities to increase sales of iodized salt that corresponds to their profit motives. Also, use the appropriate Logo or agreed-upon identifier to "brand" iodized salt and make its use by producers conditional on their good quality performance. It might be worthwhile to investigate, through a marketing company, on how a product promotion strategy could be developed in support of reaching and sustaining the national goal of IDD elimination

3. **MOIT to verify that iodized salt is incessantly used by food processing industries**
   - The information indicates that many food producers, e.g., Indo Foods and others, are already using iodized salt habitually as the ingredient in their product processing
   - To verify and consolidate this practice, the MOIT/BPOM should consider ways to monitor the purchase orders of food industries using iodized salt as ingredient
   - More accurately assess the contribution to iodine nutrition in the population through key foods processed with iodized salt. Publicly recognize the contribution being made by food industry
   - Ultimately, all food industries requiring food-grade salt as an ingredient should be compelled to use only iodized salt. From international experience, no realistic objections of technology nature or end-product characteristics exists against this practice. The decision is political

4. **MOHA to advocate for and support the development of District legislation (Perda) that aims at prohibiting the sales of non-iodized salt (as a complement to the ongoing control by MOIT of the production of iodized salt). Suggested steps include:**
   - Arrange a forum at District level involving (a representative of) Bupati, local Government, Parliament and stakeholders such as salt farmers, producers, collectors/traders, public media

[16] Social marketing promotes one product in a market environment where many products compete for market share. For the achievement of USI, however, only one product should be promoted: iodized salt – and not in competition with non-iodized salt

etc. to discuss the need for local legislation and the objective of prohibiting the sales for household consumption of non-iodized salt. Include presentations from other Districts that have Perda and generate discussion on the implications, including to salt farmers. Focus first on Districts with high salt production[17] and low use of iodized salt in households
- Obtain statements of commitment of Kabupaten leaders. MOHA to follow up with official letter to urge them to meet their commitment and accelerate actions
- Kabupaten to develop Perda. UNICEF could help undertake analysis of existing examples, and assist in formulation and dissemination of effective Perda
- Ensure supervision and technical support in production of the Perda and its enforcement. This could be done by an independent contractor, MOHA, UNICEF, Province etc. Food inspectors, trained by BPOM, but supervised by the Bupati office, can monitor availability of non-iodized and quality of iodized salt in the market, to facilitate enforcement
- Socialize the public to the new Perda, including the local media. Use public, TBAs, PKK, NGOs, religious groups, consumer groups, media etc. to support and enforce the Perda
- Enforce the Perda through the District division of Security and Order using the District police. This could include confiscation of non-iodized salt found in the market and revocation of licenses if necessary. Alternatively, other strategies might be more effective and appropriate
- Evaluate the success of the Perda, reward Districts and if necessary amend the Perda
- Kapupatens will have to report on the progress toward USI in the District as a core indicator

5. **With MOH Health Promotion in the coordinating role, strengthen, renew and *plan for permanent advocacy* on USI for sustained elimination of IDD, along the following directions toward reaching into Districts and communities.**
   - Continued promotion of the concept that all households should use only iodized salt to prevent brain damage in the unborn child, with a particular focus on the benefits for mental intellectual endowment, future school learning, and productivity at adult age. Emphasize the fact that only iodized salt should be consumed and thus, only iodized salt is for sale. As in other countries, too often the IDD/USI challenge seems to be perceived and approached primarily as scientific, health, technical or technology "quick-fix" – The challenge is to make it an issue of concern throughout many if not all layers of society, and for ever
   - More consistent and expanded use of demonstrations how iodized salt can be identified by using the rapid test kit. Link up with Kimia Farma to promote their test kit and make it more widely available for sale at a reasonable price for purchase by parents, teachers, PKK members, retailers and traders etc.[18] Use these actions in support of advocacy for Perda
   - More accurate estimation of the costs to the economy of continued IDD. Use economic loss arguments to advocate with policy makers and political leaders, including the Bupati, who may be more concerned with improving economic development of their areas
   - Draw in new partners, such as youth organizations, religious organizations, journalists and NGOs would provide an input of fresh and new ideas and inputs. Tours and competitions for media professionals (Independent journalists for example) may form part of advocacy plans. There are a growing number of well-educated, upward-mobile young people who are keen to contribute to society and their participation should be sought actively. Influential information, such as success stories could greatly influence key decision makers and assist in leveraging existing resources for USI and IDD programs.

6. **MOH to coordinate and assure permanent funding for continued annual monitoring of household iodized salt use in Districts.**
   - Ensure that the rapid test of household salt continues to be included in annual SUSENAS surveys. The element is funded from the WB loan for 2003 but there is as yet no funding allocation for 2004. The decision needs to be made urgently. There is apparently some discussion that MOH will fund this out of the Nutrition Improvement budget. The mission concludes that this information is of key importance for national and District policy and

[17] A tentative list includes in West Java: Cirebon and Indramayu; Central Java: Jepara, Pati, Kudus, Demak and Rembang; East Java: Sampang, Pamkasan and Sumenep (Madura), and Surabaya, Tuban, Brobolingo, Situbondo and Pasuruan; Bali: Klungkung, Karang Asem and Buleleng; NTB: Bima, NTT: Kupang, Manggarai and Ngada; South Sulawesi: Bantaeng, Jeneponto, Takalar, Maros and Makasar.

[18] For Kimia Farma, this could potentially have a positive impact on their KIO3 sales as the test kits could increase the demand for iodized salt, which will in turn increase purchases of KIO. Kimia Farma may be enticed to donate a "block of kits" to District IDD teams in support of effective Perdas

oversight of permanent progress, and for targeted follow-through efforts (see below on a recommended classification related to annual District planning)

- Make better use of this information. MOHA have indicated that they can give a press release on the completion of the SUSENAS analysis to publicize the findings on progress toward USI. As the results indicate current iodine nutrition status, these data should be used for prioritizing efforts (possibly including capsules) as opposed to the use of historical TGR rates
- The information should be made available to and made meaningful in each District – to the Bupati, local Government, IDD team, local media etc, for instance as part of an annual event to consider achievements and decide on further action (to consolidate progress and/or re-orient approaches if needed, etc)
- Develop the capacity of Bupati, Parliament, PKK and District IDD teams to make use of this data to review progress, consolidate the achievement where appropriate or analyze problems and support legal and social enforcement where progress is lagging
- When national USI levels reach say 80%, it may become more cost-effective to use lot quality assurance sampling to identify problem Districts and target them for special efforts. At that time it also may be efficient to add provincial monitoring of urinary excretion in the sampling frame so as to see whether and when adjustment of the national iodization level may be needed. The savings from household tests may weigh up against the cost of provincial random sample tests for urinary iodine

In connection with the above recommendations,

B. Develop and strengthen District leadership

7. Focus health education and promotion on the real issue: Brain protection

- Further develop (and possibly add) national "champions" to keep the IDD policy through USI on the public mind and accepted in District leaderships. Use convincing examples such as stories of a healthy offspring of cretin parents
- Educational efforts should be made that directly address the needs of mothers-to-be and women of child-bearing age. Young women are a key segment of society for successful IDD elimination. They also are influential in household grocery shopping and therefore should be enabled to make informed decisions on salt purchases
- Focus on a simple and understandable message- One that tells the unique contribution of iodized salt- and that during the first four months of pregnancy the iodine from salt iodization prevents brain damage in the newborn. The message should be clear that while salt iodization can improve the alertness and energy levels among (school) children, it will not increase the intelligence of children once they are born
- Support the collection and collation of data to sharpen the formulation of effective messages at national and District level. Opportunities exist to do add omnibus questions to planned studies by organizations such as JHU/CCP, PATH and Helen Keller Worldwide. Currently, JHU/CCP is planning a study on 1,500 midwives and has invited UNICEF to place five questions on their instrument. UNICEF should seize this opportunity and submit the questions before end September. UNICEF HQ can assist the Jakarta office to ensure the insertion of the questions
- Opportunities exist and should be further explored to include pre-marriage counseling, pre-natal counseling, family planning and reproductive health counseling and involvement of women's groups
- Given the large number of Districts and the need for District-specific work, development should be supported of a template/menu that outlines activities, key messages and results that Districts could use. Individual Districts could then modify as appropriate and allocate appropriate messages through the channels and delivery agents of choice

8. Involve religious leaders to deliver the IDD messages in a way that people can accept and understand more readily. The cost-effectiveness of such an approach may be surprising

- Religious leaders enjoy high prestige in the Indonesian society. Their participation should be actively sought particularly in areas where their role is known to be more influential than Government (Nusa Tenggara, South Sulawesi and Bali, for example)
- Messages wrapped around religious teachings can be very powerful in cultivating social change. Religious leaders in Indonesia have been involved in the past with great success in the Expanded Program for Immunization and Family Planning (a very sensitive subject)
- Religious leaders, in particular the Moslem Imams, are willing and ready to work with the program and this opportunity should not be lost. What is required is (a) analysis of the regions

and Districts of interest and selection of the appropriate religious channel(s); and (b) Organization of a workshop to develop a plan and compilation of an agreed number of sample sermons, teachings, prayers, etc
- Take advantage also of the periodic meetings and gatherings of religious leaders to reinforce the importance of working with the IDD program

9. **Undertake <u>District-based analysis</u> on the flows in raw salt to understand why and how it enters the market. Develop feasible strategies to support local enforcement. Ultimately, the aim will be to identify ways to absorb the raw salt into a system of direct iodization rather than have it either upgraded or continue going directly to consumers. The analysis should answer questions such as:**
   - Why is the people's salt sold directly to middlemen and retailers rather than producers – is it because it is of too poor quality or do middlemen pay a higher price than processors
   - Do farmers sell it directly or is it purchased by intermediary traders – Who are they and at what scale do they operate and from what location(s)
   - What are the conditions under which raw salt can be directly iodized before reaching the market
   - If raw salt is blocked from entering the market (e.g., through confiscation) would it be absorbed by the processing facilities
   - Is raw salt in the market a reflection of excess supply (in excess of what is wanted by the licensed producers) or is it an issue of preferential consumer demand

10. **Develop approaches for community monitoring in Districts, eg. those with Perda or UNICEF Districts**
   - Incorporate education on IDD and USI into the school curriculum on a permanent basis. Once a year or once a term, children should have a lesson on IDD elimination, perhaps visit a salt processing plant and also bring salt samples from home to test for iodine. Given the very active role that school children can play in testing iodized salt, consideration should be given to involving them in petitions that would go to the District authorities. An after-school activity could be testing more salt within their communities including in local markets, restaurants, neighborhoods etc. The results of this information to be shared with local Parliament, local media and the IDD team to lobby for action[19]
   - Train PKK (or other relevant groups – local NGOs, cadres, religious associations, etc) to monitor markets and identify non-iodized salt using test kits. This information can be reported to local Parliament, local media and the IDD team to lobby for action as part of social enforcement

11. **Build and develop the capacity of District leaders, Parliament, IDD teams and other appropriate partners in Districts to more meaningfully advocate the objective of IDD elimination and the strategies to achieve it. This might include:**
   - How to use SUSENAS data for monitoring permanent progress (see next recommendation) and initiate change if needed
   - Provide guidelines for analysis of the causes of non-iodized salt in the markets and households
   - Suggest trigger points for further action. For instance, if and where less than 50% households use iodized salt, undertake sub-District assessment to find out where/what the problem is
   - Create "champions" at District level that keep the IDD policy through USI on the public mind
   - Provide guidelines and examples on how to develop and implement the Perda
   - Support to community monitoring and mobilization around USI
   - Involve salt producers, collectors/traders, producers and distributors, and appeal to their sense of moral obligation ("A noble cause") in ensuring USI and elimination of IDD
   - Involve women's groups, midwives/TBAs and religious organizations to support the social enforcement model that MOH has developed. The form of capacity building could include study tours, workshops, orientation seminars, etc. UNICEF should take advantage of existing tools that have been developed through other UNICEF offices, such as ESAR. It may be worthwhile to consider developing capacity in a national institution, such as the Institute for Social Transformation to undertake capacity building for these large groups in need

[19] If this system becomes well-institutionalized the data could also form a source of progress information for Districts, as well as in addition to the SUSENAS data

12. **Assist District leaderships in developing oversight capacity of annual plan achievement for sustained IDD elimination, using the SUSENAS data as basis for informed decision making along the following recommended classification of progress:**
    - <40% of households with iodized salt – i.e., the current "red" Districts
      These are Districts with highest priority for new Perda enactment and enforcement, along with development of monitoring capacity (MOIT, BPOM and community-based). The major action in these Districts should be directed toward working with the intermediary traders/collectors of the people's salt, so as to find ways of enabling them to iodize raw salt prior to selling it to their customers or households. Communication should emphasize advocacy, and mobilization of community-based organizations and workers into identifying and capturing the channels and flows of people's salt from salt farmers to wet markets and shops in communities. Experience of this work should be used to strengthen collaborative ties among the major actors concerned and involved in the District
    - 40-74% of households with iodized salt – a new category of "orange" Districts
      Obviously at this stage, a number of producers/processors (or traders/collectors) have gained a sizable foothold in the iodized salt trade, and are succeeding in assuring a significant amount of household iodized salt use. First and foremost, appropriate Perda should be enacted in these Districts. Based on results of continued quality control (MOIT certification monitoring and BPOM brand testing in markets), work in these Districts should assist the *bona fide* enterprises in efforts to out-compete the sources of non-iodized salt. Support for the non-iodized salt sources (iodization capacity, training, etc) to alter their ways might still be considered. Focus also on adequate communication support (e.g., school-based testing of household salt, information for faith-based groups, etc) to community-based organizations, while ensuring efficient use of monitoring/control results. Advocate for acceptance of a budget line for IDD elimination in the District Government budget, related to national guidance and backstopping. Work should start also to develop a District Coalition tasked to oversee (and see to it!) that the IDD elimination effort progresses
    - 75-90% of households with iodized salt – a new category of "yellow" Districts
      The District now appears to have arrived at a stage tantalizingly close to USI. No further support, but rigorous enforcement with clear repercussions, should be directed to non-compliant salt traders. Intensify monitoring through all available sources. Communication support should aim at developing capacity in community based change agents and organizations to making the use of iodized salt permanent: PKK, TBAs, schools, religious groups, young adults, etc. A budget line for sustained IDD elimination should become permanent in the District budget. A District Coalition should become formally established and begin working toward efforts to sustain USI (see category below)
    - If >90% of households with iodized salt – i.e., the current "green" Districts
      These are the Districts where USI has been attained. This success must be sustained and the risk avoided of a decline of vigilance due to waning political or industry concern in the District. The underlying cause frequently is the lack of persistent communication and education. Avoiding these risks requires periodic (e.g., once a year) re-invigoration of the District stimulus, linked to a national stimulus (e.g., national IDD Day) to USI. Oversight of iodine nutrition by the District Coalition is a priority. Tasks of the Coalition may include assuring that (a) USI is permanently practiced and respected by salt industry, traders, and control authorities, (b) public and other forms of education on the need and source of adequate iodine is continuous, (c) linkage with national entities on USI and IDD elimination is functional, and (d) national monitoring of iodine nutrition demonstrates that the success of the District endures. The Coalition should review results of monitoring, and publicly report on its proceedings so as to assure the knowledge of all concerned that the success of IDD elimination through USI is in evidence.

UNICEF assistance and support role

With relatively limited financial means, UNICEF has been a consistent supporting partner in the national endeavor to eliminate IDD in Indonesia. The recent history of collaboration in Indonesia demonstrates UNICEF's strong technical expertise in following through on the national USI strategy. The emphasis in UNICEF programming during the past few years has been on continued enhancements of advocacy with national entities and District political leaderships, further development of salt upgrading-cum-iodization capacity in selected enterprises (for instance in Nusa Tenggara), strengthening of quality control/monitoring capacity – for example by training, and intensification of the communication and collaboration among leaderships and influential gatekeepers nationally and in Districts. A number of observations have been written in previous chapters about the mission's findings of UNICEF's past role and assistance. The mission concludes that UNICEF is a leading, strong and dependable external agency supporter –and has made true to that role- from its permanent on-the-ground presence and the technical excellence shown in collaborative efforts with the various counterparts who jointly pursue the national goal.

Looking toward the future, the mission extends on previous advice to particularly focus effort and extend capacity development assistance toward District leaderships, and community-based organizations with linkages and representation in Districts. The decentralization policy offers the opportunity to use District authority to close the gap left by nationally legislated requirements, with a special leadership role by the Bupatis in the Kabupatens. This places less experienced persons in the very responsible management position of handling the myriad of changes and challenges, with a need for on-the-job training while running the Districts. The mission's recommendations are that, dependent on the stage of USI achievement in the District, a transition should occur in managing the legislation, communication, monitoring and reporting efforts by the District leadership.

To make the most progress in a short time, the mission recommends that UNICEF directs its priority to capacity development for District plan management in those Districts in Indonesia where iodized salt is used in <40% of households and large numbers of small salt farmers are clustered. For UNICEF this may mean a selection of a number of Districts in Nusa Tenggara (for example, those exporting salt to Bali), East Java and possibly other Provinces.

The tasks at hand include:

- Salt situation analysis to identify the middlemen and their capacity/motivation as intermediaries of the salt flow between people's salt farmers and the market/households
- Building salt iodization capacity with these middlemen (collectors/traders) at a minimum cost-effective scale, using simple technologies, while ensuring appropriate quality assurance and control practices, with the aim to raise the amount and proportion of iodized (not necessarily upgraded) salt reaching consumer households
- Communication efforts to the general public through selected, relevant religious organizations and other channels of community workers such a PKK, TBAs, etc
- Work with community based organizations and workers to
    - Widely and persistently share the key information of the dangers of IDD and the benefits of salt iodization: Brain protection among all newborns, and
    - Expand and strengthen their capacity to monitor that (only) iodized salt is sold
- Management and oversight capacity development, including mobilizing and formation of District Coalitions.

The experience in a number of "model" Districts would be collected over the next year, consolidated in "lessons learned", and transferred to other (bordering) Districts in the same Provinces for replication.

In addition to the action plans in selected Districts, other areas of collaboration need to be maintained and/or strengthened. These include:

- Continued District-wise annual monitoring of iodized salt use in households. Improve the utilization of these data by District planning refinements as outlined above
- Advocate and where necessary, train District leaderships on the need for, and the techniques of planning, management and evaluation of District-level IDD elimination through USI
- Support MOHA/MOH with drafts, community-wide consultation and enactment of District Perda versions, adjusted to realities in diverse Districts
- Improve the knowledge base on food processing industries using iodized salt as ingredient

- Support MOIT (possibly: study tour, international contacts, etc) in adjustments of the national salt industry development policy in light of international realities
- Provide support to national entities in preparation for
  - Reporting solidly at international forums associated with the goal deadline by 2005, and
  - Capacity establishment to ensure that USI endures and IDD elimination is sustained.

As to personnel needs, the mission recommends that UNICEF Jakarta should consider the level of professional expertise needed for accomplishing these immediate, urgent tasks. As in recent years, a dedicated position in the main office would be ideal. Moreover, the mission recommends that in each District selected for "District model" development, a national officer (JPO or UNV?) may be placed in the Bupati's office to support from UNICEF the variety of District authorities and organizations in the myriad of joint actions.

In the global effort to achieve USI for sustained IDD elimination, obtaining permanent success in Indonesia is of great importance. The challenge arisen from the particular national policy constellation can be overcome in the period ahead by diligent work in and with Districts. The outline for an approach as described in this report took shape during the mission and continued with correspondence afterward. Members of the mission will remain available for further comment and refinement, if desired.

Indonesia is among the nations preparing to participate with a high level, multi-professional delegation in the "Ministerial Meeting on Acceleration of Sustained IDD Elimination", planned in Beijing 15-17 October 2003. Further consolidation of these plans would take place at that event, with the international support community ready to offer collaboration. UNICEF has a unique leadership role in Indonesia, and internationally, in the assistance and support efforts needed to achieve the goal of sustained IDD elimination through USI.

ANNEX 1

Terms of Reference Team 1

Team leader:	Pak Sunawang (Indonesian expert)
Members:	Abdulaziz Adish/Anna Winoto (UNICEF, part time)
	Karen Codling (Regional Nutrition Advisor, UNICEF EAP)
Informants:	Pak Soekirman, MOH Focal Point for IDD elimination, IDD Center of Excellence, MOH, MOIT, Academia, World Bank, Home Affairs, UNICEF, Kiwanis Jakarta

The team will focus on collecting and analyzing information on issues associated with the following subjects:

A. Evidence of (continued) iodine deficiency in Indonesia

- Annual SUSENAS surveys of household use of adequately iodized salt
- District mapping of goiter rates (correlations with %HH use?) among school children
- District/Provincial mapping of UIEs among school children (correlations with %HH use; goiter rates; sampling design, accuracy/precision?)
- Evidence that women of reproductive age are protecting new generations of newborns against brain damage
- Scientific interests/data base development/collaboration
- Locations of highest severity, and their consistency over time, and population sizes involved
- Responses of iodized oil capsules; evidence of efficiency, of effectiveness or impact. Relationship with the USI strategy

B. Government structure and capacity development for USI/IDD elimination

- Evidence of high-level national commitments related to resource allocation: "Political will"
- Public acknowledgment, periodic maintenance of commitment
- Inter-ministerial coordination and public-private (civic) alliance building: experience and evidence
- Technical roles and responsibilities of ministries/industries/decentralized structures concerning
    - Universal salt iodization (by market segmentation)
    - Quality control and enforcement (mechanisms, evidence, effect)
    - Consumer education (where, who, what, when)
    - Monitoring of Iodine Nutrition (see above)
    - Generation and maintenance of political will at central, provincial and District levels
- Technical guidance available or needed for decentralized responsibilities and roles; priority setting for "piloting" of an oversight structure to see to it that the progress toward USI/IDD/Iodine Nutrition is permanent (national, provincial, District)

Specifically,

1. Perform research of documents, hold interviews with key informants and conduct (field) visits as appropriate in order to inform on the subjects listed above

2. Summarize the findings in a short note, accompanied with main conclusions on how the above issues have supported or weakened the past progress toward IDD elimination through USI in Indonesia

3. Formulate recommendations for priority actions that in the team's view would lead to acceleration of USI in Indonesia, including your justification why you decided on these recommendations

4. Formulate recommendation(s) to UNICEF on their support during the remaining part of the current PoA (2000-2005)

5. Discuss the findings with members of teams 2 and 3, and present your draft consolidated findings during a reporting out session in UNICEF on Friday, 15 August 2003

6. Submit your report to the task team leader of the review (Responsibility Team Leader).

Documentation includes, but not limited to:
- World Bank Mid-Term Review, 2001
- World Bank Aide Memoir from Supervision Mission April 2001
- UNICEF PoA 2000-2005 (IDD part) and analysis of activities/allocations/effort, etc
- UNICEF Technical reports IDD project from previous and present PoA:
    - On Advocacy/IEC
    - On salt iodization efforts
    - On QA/QC, monitoring, etc
- Indonesia set-up of institutional involvement: MOH, MOIT, Home Affairs, Fd&Drugs; POM, Salt Iodization Teams, Aprogakop
- WB OED Report: Analysis of Combating Iodine Deficiency – Indonesia, 2001
- UNICEF analysis of investments in salt iodization equipment, capacity building, advocacy/education and USI promotion

Terms of Reference Team 2

Team leader:	Justus de Jong (Akzo Nobel Salt Division)
Members:	Anna Winoto/Abdulaziz Adish (UNICEF, part time)
	Pak Cucu Sutaro (Aprogakop)
Informants:	MOIT Focal Point for IDD elimination/USI MOH, SITs of selected Provinces/Districts, Kimia Farma, UNICEF, Kiwanis Jakarta

The team will focus on collecting and analyzing information on issues associated with the following subjects:

A. Development of the salt industry since 1995

- Major (groups of) supply sources; market segmentation; trade channels:
    - Urban high quality, packaged salt
    - National packaged, iodized salt
    - Rural un-iodized bulk salt
- Geographical relationships of supply sources to their principal markets
    - Rough salt source/market structure: major changes to Fig 4 in 1995 report?
- What have been or are the industry, Government and agency efforts to improve (small) salt farming, purification and/or iodization?
- Analysis of the SNI (National Salt Standard) and its relevance/applicability to large/small manufacturers of iodized salt
- Role of Salt Iodization Teams; usefulness, evidence of effectiveness?
- Effect of decentralization policy on GoI's oversight/support of salt industry
- Focus on "people's salt"; Where, how, evidence of outcome, impact
- Iodization equipment, materials, QA etc. supplies and maintenance: Who does what and when, what incentives, what evidence of effect?
- Perceived problems in processing (Changes to page 31 in 1995 report)?

B. Imports of salt into Indonesia

- Kinds/qualities of salt, amount, consistency over the years?
- Import mechanisms, sources, actors/entities involved, purchase/supply process
- Government import/trade regulation, quality inspection, custom roles
- Import duty, amount and utilization of revenue (any earmark?)
- Deliveries, customers and geographical destinations
- Significance of imports in raising the use of iodized food grade salt
- National self-sufficiency policy? Stocks? Stock management?

Specifically,

1. Perform research of documents, hold interviews with key informants and conduct (field) visits as appropriate in order to inform on the subjects listed above

2. Summarize the findings in a short note, accompanied with main conclusions on how the above issues have supported or weakened the past progress toward IDD elimination through USI in Indonesia

3. Formulate recommendations for priority actions that in the team's view would lead to acceleration of USI in Indonesia, including your justification why you decided on these recommendations

4. Formulate recommendation(s) to UNICEF on their support during the remaining part of the current PoA (2000-2005)

5. Discuss the findings with members of teams 2 and 3, and present your draft consolidated findings during a reporting out session in UNICEF on Friday, 15 August 2003
6. Submit your report to the task team leader of the review (Responsibility Team Leader).

Documentation sources include, but not limited to:
- Salt Industry Study, 1995. Cargill Technical Services
- Analysis MOIT policies to increase consumption of iodized salt, 1997. Nathan Associates
- Summary salt monitoring reports 1995-2002 by Province
- UNICEF Technical reports IDD project from previous and present PoA:
    - On salt iodization efforts
    - On QA/QC, monitoring, etc
- Details of Presidential/Ministerial decrees (1995/1995) and national salt standard (SNI)
- Indonesia set-up of institutional involvement: MOH, MOIT, Home Affairs, Food & Drugs Inspection; POM, Salt Iodization Teams, Aprogakop
- WB OED Report: Analysis of Combating Iodine Deficiency – Indonesia, 2001
- UNICEF analysis of investments in salt iodization equipment, capacity building, advocacy/education and USI promotion

Terms of Reference Team 3

Team leader:	Waithira Gikonyo (UNICEF New York)
Members:	Brian Weston (Vice President Marketing, Morton Salt)
	Pak Benny Soegianto (local consultant)
Informants:	MOH, SITs of selected Provinces/Districts, SUSENAS, MOIT, Home Affairs, UNICEF, Kiwanis Jakarta

The team will focus on collecting and analyzing information on issues associated with the following subjects:

A. Markets and purchase/use of food grade salt

- Population sizes and achievements in iodized salt use
    - Estimate the sizes and locations of populations not consuming iodized salt based on 1996-2002 %HH IS data: Reasons(s) for priority setting by population?
    - Associate these populations with established salt trade patterns to identify sources of non-iodized salt and their relative importance for future priority
- Identify Government structures (Province/District) associated with supply and use
- Recommend SIT actions to improve the quality assurance of supplies, to provide IEC and conduct monitoring
- Provide recommendations how public education and product promotion might assist in improved use of iodized salt in these populations
    - Elaborate on channels, roles and responsibilities of public and private entities

B. Public education for sustaining acceptance

- Educational efforts and resources in strengthening the USI strategy; high-level advocacy to influencing decisions among gatekeeper groups
    - Analysis of past efforts, advocacy to leaders, channels and messages used; evidence of effort, outcome and effect on household and food industry use of iodized salt
    - Educational insertion in school, technical and professional curriculums
    - Use of school children as messengers to households

    - Other forms of social enforcement?
    - Involvement of private and civic (religious?) resources, expertise and channels
    - Media use and importance
- Institutional anchors in management of the national effort
- Alliance creation at various levels – role of communications expertise

Specifically,

1. Perform research of documents, hold interviews with key informants and conduct (field) visits as appropriate in order to inform on the subjects listed above

2. Summarize the findings in a short note, accompanied with main conclusions on how the above issues have supported or weakened the past progress toward IDD elimination through USI in Indonesia

3. Formulate recommendations for priority actions that in the team's view would lead to acceleration of USI in Indonesia, including your justification why you decided on these recommendations

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Documentation includes, but not limited to:
- UNICEF Technical reports IDD project from previous and present PoA:
    - On Advocacy/IEC
    - On salt iodization efforts
- Indonesia set-up of institutional involvement: MOH, MOIT, Home Affairs, Fd&Drugs; POM, Salt Iodization Teams, Aprogakop
- WB OED Report: Analysis of Combating Iodine Deficiency – Indonesia, 2001
- UNICEF analysis of investments in salt iodization equipment, capacity building, advocacy/education and USI promotion