



## IMPORTANCE OF ACHIEVING UNIVERSAL SALT IODIZATION (USI) TARGET

Iodine deficiency is a problem in Indonesia. Based on the level of the problem, Indonesia is categorized as mild iodine deficiency<sup>1</sup>. In addition, the proportion of households consuming adequately iodized salt is only 77.1%, under-iodized salt is 14.8%, and non-iodized salt is 8.1%<sup>2</sup>.

Iodine deficiency is prevalent in certain areas, especially in areas with difficulty accessing seafood, difficulty accessing iodized salt or in areas with low soil iodine content. Thus, certain groups are more at risk of iodine deficiency. These groups include pregnant women, breastfeeding women, and vegans or vegetarians.

Therefore, the fulfillment of iodized salt intake is one of the important means to overcome iodine deficiency. To ensure that every citizen, especially the most at-risk groups are able to access iodized salt, the government needs to implement a policy of Universal Salt Iodization (USI), where at least 90% of the community consumes iodized salt with standard content.

To achieve the USI target in Indonesia, the government has implemented various strategies including improving the quality of farmers' salt, increasing the quantity and quality of iodine-fortified salt, increasing the distribution coverage of

iodised salt, and increasing household consumption of iodised salt.

At the farm level, the programme includes training and development to improve salt quality, empowerment of salt farmers through improved socio-economic status, and sheltering small farmers to improve welfare. Improving the distribution and quality of iodised salt includes quality control and facilitating salt fortification especially for medium and large-scale producers. Monitoring the distribution and consumption of iodised salt involves communities and school children by sampling household salt. The programme has been successfully implemented in most parts of Indonesia, but has been unsuccessful in certain areas which in turn has led to 29.1% of households not consuming salt with sufficient iodine content or no iodine at all. The evaluation of the implementation of mandatory salt iodisation in 2003 showed real progress. Whereas in 1980 only 30% of households used iodine, in 2003 it increased to 73.2%. In 2007, Risesdas data showed that the average iodine content of salt in households was still less than 30 ppm, at 20.28 ppm.<sup>3</sup> The latest data from Risesdas in 2013 showed that 77.1% of households consumed salt with

<sup>1</sup> WHO. 2004. Iodine Status Worldwide: WHO Global Database on Iodine Deficiency. [Iodine status worldwide: WHO Global Database on Iodine Deficiency](#).

<sup>2</sup> Kemenkes. 2013. Riset Kesehatan Dasar tahun 2013.

<sup>3</sup> Kemenkes RI. 2007. Riset Kesehatan Dasar (RISKESDAS) 2007. Jakarta: Kemenkes RI.



sufficient iodine content. However, there were still 14.8% who consumed salt with insufficient iodine content, and 8.1% consumed salt that did not contain iodine.<sup>4</sup> This achievement is still far from the RPJMN target where iodised salt consumption is expected to cover 90% of households<sup>5</sup>.

However, the Government of Indonesia stopped the Iodine Deficiency Disorder (IDD/GAKY) Programme in the belief that the last IP-GAKY (in 2003) had successfully resolved the IDD problem. However, the data below shows otherwise. The TGR of school children in 1996 was 4.4%, increasing to 6.8% in 2003. In addition, in 1996, 8.9% of districts/municipalities with at least 90% of households consumed iodised salt or were categorised as iodine sufficient, but in 2003 not a single district/municipality was categorised as iodine sufficient.<sup>6</sup>

China is one of the countries with high USI implementation. China has maintained more than 90% adequate household consumption of iodised salt since 2005 nationally and in most provinces (97% of households consumed adequate iodised salt in 2014). The median urinary iodine concentration (MUIC) of school-aged children and pregnant women is in the optimal range nationally and most provinces.<sup>7</sup> IDD has decreased

dramatically in China since the implementation of the iodised salt programme in 1995. Iodised salt coverage has reached 94% of China, an 80% increase from the first implementation in 1995. At the same time, the rate of goitre in children aged 8–10 years has decreased from 20.4% in 1995, to 8.8% in 1999<sup>8</sup>.

The achievement of USI in Indonesia still seems to be faced with various problems, among which are:

### **1. Regulations on the Distribution of Geographical Indication (GIG) Salt that is not required to be fortified**

Regulations on the application of Geographical Indication Salt can be found in Law Number 20 Year 2016 on Trademarks and Geographical Indications. This regulation aims to protect and recognise the uniqueness and local characteristics of geographically indicated salt, increase economic value, and improve the competitiveness of local salt products. However, the existence of geographical indication salt may be an obstacle to the achievement of USI in Indonesia. This is because

<sup>4</sup> Kemenkes RI. 2013. Riset Kesehatan Dasar (RISKESDAS) 2013. Jakarta: Kemenkes RI.

<sup>5</sup> Peraturan Presiden No 18 Tahun 2020 tentang Rencana Pembangunan Jangka Menengah Nasional Tahun 2020-2024.

<sup>6</sup> Djoko Kartono dan Djoko Moeljanto: Bul. Penel. Kesehatan, Vol. 36, No. 2, 2008:91 – 98

<sup>7</sup> UNICEF. 2016. Meeting Report : The East Asia Pacific Regional Workshop on Achievement of Universal Salt Iodization for Optimal Iodine Nutrition.

<sup>8</sup> Goh CC. 2002. Combating iodine deficiency : Lessons from China, Indonesia, and Madagascar. *Food Nutr Bull.* 23(3) : 280-290.

geographical indication salt certification only focuses on the local characteristics of the salt without considering whether the salt is fortified with iodine or not. The utilisation of geographically indicated salt may reduce the demand for iodised salt, thereby reducing the consumption of iodised salt in the community. In addition, the focus on geographical indication salt may divert attention from the importance of iodised salt consumption, which may hinder the achievement of USI.

While geographically indicated salt has benefits in protecting the local salt industry and increasing its market value, it is important to

remember that USI is a national programme that aims to ensure that at least 90% of Indonesia's population consumes iodised salt without exception. Therefore, efforts need to be made to ensure that the utilisation of geographically indicated salt does not hinder the achievement of the USI target.

## 2. Import of non-iodised salt

The fulfilment of salt needs in Indonesia is done through salt imports. According to BPS (2023), Indonesia imported 2.76 million tonnes of salt in 2022 from various countries of origin. The data of Indonesia's salt imports in 2017–2022 can be seen in the following table.

Country of imported salt from	Import Weight (Ton)					
	2017	2018	2019	2020	2021	2022
Australia	2.296.681,3	2.603.186,0	1.869.684,2	2.227.521,7	2.108.345,0	1.998.382,5
India	251.590,1	227.925,6	719.550,4	373.933,0	715.506,0	751.398,0
New Zealand	2.669,5	3.806,8	4.052,4	4.076,3	3.487,7	4.382,1
China	219,3	849,8	540,9	1.321,4	2.470,1	1.377,0
Denmark	486,8	816,7	496,2	376,5	448,5	194,9
Germany	300,1	236,0	243,0	231,2	201,8	286,0
Thailand	307,8	178,6	448,6	331,2	375,0	425,0
Others	326,4	1.708,5	279,1	229,3	247,5	425,0
<b>Total</b>	<b>2.552.581,2</b>	<b>2.838.708</b>	<b>2.595.294,8</b>	<b>2.608.020,5</b>	<b>2.831.081,6</b>	<b>2.756.626</b>



Source : BPS (2023)<sup>9</sup>

The industry prefers imported salt on the grounds that it is considered to have specifications that meet industrial needs and cheaper prices than local salt. Salt specifications for industry must contain NaCl above 97%, while local salt only has a NaCl content of 81-96%. In terms of price, imported salt is cheaper (IDR 400/kg) than local salt (IDR 500-600/kg).

Salt imports may hinder the achievement of USI because imported salt is not subject to the iodine content standard. Imported salt may not meet the quality and iodine content standards needed to achieve the USI target because it is not regulated. In the medium to long term, the presence of imported salt without the obligation to fortify it may not ensure the sustainability of the USI programme.

The regulation on salt imports in Indonesia is stipulated in the Minister of Trade Regulation No. 63/2019 on Salt Imports. The salt referred to in this regulation is table salt, unprocessed rock salt, salt with a NaCl content of more than 60% but less than 97% iodine fortified, etc. However, this

regulation does not clearly state whether salt import requirements must be fortified or not. However, according to the Presidential Decree of the Republic of Indonesia No. 69 of 1994 on the Procurement of Iodised Salt Article 1 states that "Salt that can be traded for the purposes of human or livestock consumption, fish salting, or food industry auxiliary materials is iodised salt that has met the Indonesian Standard (SII)/Indonesian National Standard (SNI)".

So, it is still unclear whether imported salt goes through the process of adding iodine first before being traded in the community, or directly circulated in the community. Of course, this is a loophole for the existence of non-iodised salt in the market.

### **3. Misconceptions related to iodised salt**

Some misconceptions related to iodised salt are also an obstacle in achieving USI. One of them is in people with Down syndrome. People with Down syndrome are at greater risk of thyroid disorders (hypothyroidism or hyperthyroidism) which require more iodine intake.

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<sup>9</sup> <https://www.bps.go.id/statictable/2019/02/14/2013/impor-garam-menurut-negara-asal-utama-2010-2017.html>



In addition, many food companies use sea salt as a substitute for iodised salt. This is due to the rumoured change in the taste of food when iodised salt is used instead of non-iodised salt such as sea salt (krosok or regular uniodised salt) or himalayan salt. However, a simple test tried to determine if there was any difference in flavour between iodised and non-iodised salt. After each salt was dissolved and given to panellists, the result was that none of the panellists could tell the difference between the two types of salt.<sup>10</sup> Although there is a difference, it is thought to be only a minor difference that should not be a deterrent to preferring iodised salt.

Currently, there are many articles and information about himalayan salt (pink himalayan salt) being healthier than the iodised salt that is prevalent in the market. Himalayan salt is a type of rock salt that originates from the Punjab region of Pakistan, near the himalayan foothills and is considered to be one of the purest salts and has many health benefits. However, it actually has very little added minerals, and there is no research to support its

health claims. Himalayan salt is not fortified with iodine so its consumption effect hinders the achievement of USI in Indonesian society.<sup>11</sup>

Based on the above obstacles, the following recommendations can be formulated to ensure the achievement of USI targets in Indonesia:

1. Better monitoring and evaluation of the implementation of the PUGAR (Pemberdayaan Usaha Garam Rakyat) programme.
2. Strict supervision and regulation of salt imports is needed to ensure that imported salt meets the quality standards and iodine content needed to achieve the USI target. Diperlukan regulasi khusus terkait garam indikasi geografis agar tidak mengganggu pencapaian USI.
3. Align iodisation standards for geographically indicated salt.
4. Develop regulations for industries to use iodised salt in the production process. USI targets not only household consumption of iodised salt, but also overall salt consumption.
5. Establish and strengthen quality control systems and laboratories to monitor the iodine content of salt at various levels such as

<sup>10</sup> [Iodized Salt vs. Noniodized Salt on Food Flavor | Cook's Illustrated \(americastestkitchen.com\)](https://www.americastestkitchen.com)

<sup>11</sup> [Disinformasi] Garam Pink Himalaya Lebih Sehat

[https://www.kominfo.go.id/content/detail/22704/disinformasi-garam-pink-himalaya-lebih-sehat/0/laporan\\_isu\\_hoaks](https://www.kominfo.go.id/content/detail/22704/disinformasi-garam-pink-himalaya-lebih-sehat/0/laporan_isu_hoaks)



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