

PART 3

Professional Review Report (indirectly) – The Publications

1. In 2013, The 12th International Symposium on the Analytical Hierarchy Process: Multi-Criteria Decision Making, International Islamic University, Kuala Lumpur – Malaysia.

The Application of GIS-AHP to Develop a Strategic Planning for Urban Farming: Fishery and Aquaculture

The purpose of this study is the evaluation of strategic planning in developing an urban farming: program of fishery and aquaculture in Surabaya City (7°9' - 7°21' south latitude and 112°36' - 112°57' east longitude), Indonesian. It would be crucial for government's policy to understand the relative importance of various environmental factors. To support their decision in making process, a Geographic Information System (GIS) was combined with an Analytical Hierarchy Process (AHP) in this study. The GIS were produced through processing image data and map digitized by using Google Earth, ArcGIS and Spatial Plan of Surabaya city. Meanwhile, the data was used in designing development priorities Urban Farming: Fishery and Aquaculture by using the AHP approach. The result from an urban aquaculture can be utilized to develop the effective of strategies at paddy field, natural fish ponds, fish cages, and artificial fish ponds.

Keywords: GIS-AHP method, multi criteria, urban farming: fishery and aquaculture, strategic planning.

2. In 2013, JurnalSegara, Vol. 9, No. 2, KKP, Jakarta – Indonesia.

Diversity of Seawater Quality, Folk Salt, and Salt Evaporation Gradually in Coastal Area of East Java

Most of seawater mineral consist of sodium (Na^+), magnesium (Mg^{2+}), calcium (Ca^{2+}), chloride (Cl^-), and sulfate (SO_4^{2-}). If Ca^{2+} , Mg^{2+} , and SO_4^{2-} can be separated, therefore the salt crystals produced have a high NaCl. This research aims to know the quality of seawater as raw materials, quality of folk salt, and quality of salt from evaporation model in stages. Sampling of seawater and folk salt were obtained from several locations at coastal region of East Java, while the brine water and salt samples were obtained from evaporation model in stages at salt land and laboratory scale. The results showed the quality of seawater as raw materials were still eligible to use at salt land, quality of folk salt did not meet the rule of standards, and quality of salt from evaporation model in stages nearly lled the rule of standards.

Keywords: sea water quality, folk salt quality, evaporation salt quality in stages.

3. In 2015, American Scientific Research Journal for Engineering, Technology, and Sciences, Vol. 12, No. 1, pp. 53 – 65, Global Society of Science, Research, and Researcher.

Strategic Planning for Capacity Building Production and Salt Farmer in Region of Surabaya City East Java Indonesian

Currently Indonesian society's view of the activities considered as industrial salt production less profitable and does not require any skill level. Survey activity is conducted in the North Surabaya City. Determination of the strengthening of the model strategy using SWOT-AHP

combined method with involving respondents from salt farmers, landless, Department of Agriculture Surabaya. The results showed that the strengthening of the strategic plan which will be progressively is Comparative Advantage Strategy, where the implementation of the plan to strengthen the productivity of salt and salt farmers in the Surabaya City, include: (1) Method innovation of Maduris plus in the production of salt land, (2) salt purification technology innovation of the people through appropriate technology, (3) the ability to diversify the products of salt, including salt, salt of various food, molten salt and the salt industry, and (4) the ability to access working capital through the strengthening of cooperative salt Surabaya.

Keywords: production of salt; salt farmers; SWOT-AHP; strengthening strategy.

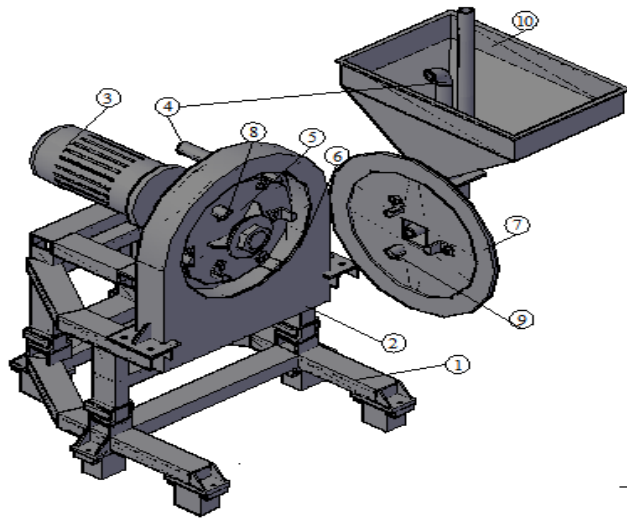
4. In 2017, Applied Mechanics and Materials, Vol. 862, pp. 174 – 181, Trans Tech. Publication.

The Combination Process between Disc-Mill and Distillation Evaporation in Producing Salt Diversification Products

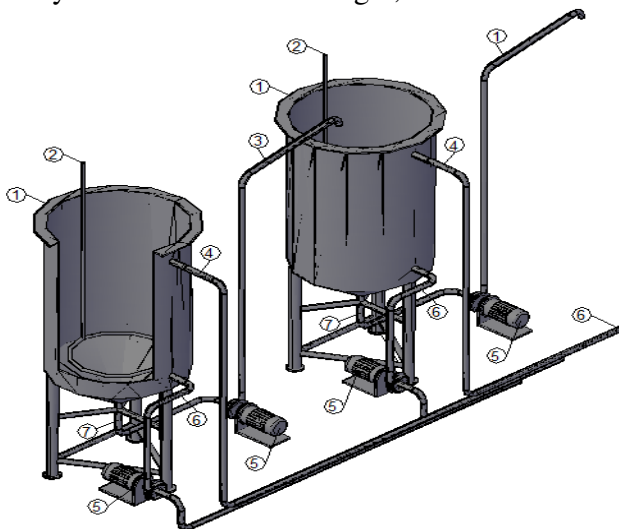
Blue Economy concept began with the farming of Artemia salt. The industry of farmer's salt was one of the pillars that supported the economy of coastal communities. At present, the perspectives of the public on an industrial salt production is less profitable and conducted by unskilled labourers. Nowadays, the farmer still use the evaporation total method of sea water by solar power, where the NaCl was $\leq 90\%$ and residual brine. It is necessary to improve the salt production through combination between disc-mill and distillation evaporation technology to produce salt diversification product. The result of the combination process were refined salt with NaCl that was $\geq 90\%$, liquid salt with NaCl that was $\pm 60\%$ and mineral water.

Keywords: combination process, disc-mill, distillation evaporation

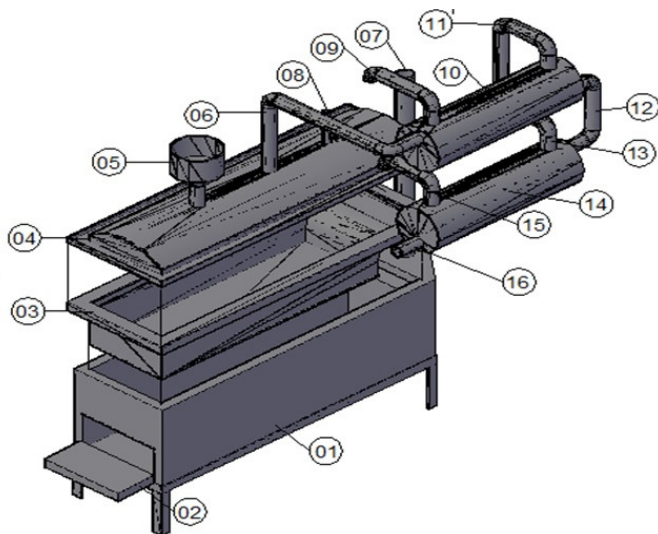
5. **Simple Paten:** *Salt Disc Mill with High Rotation* (Alat Pelembut Garam Putaran Tinggi).
Inventors: *Bagiyo Suwasono, Ali Munazid, Tukul Rameyo Adi, & Bagus Hendrajana*
No. Register: S00201501148, February 2015
No. Certificate: IDS000001519. November 2016
No. Claims = 2 (two)
Ministry of Law and Human Right, Indonesia.



6. **Simple Paten: Salt Wash Tank on Gradually**(Alat Pembersih Butiran Garam secara Bertingkat).
Inventors: *Bagiyo Suwasono, Ali Munazid, Intan Baroroh, Wahyu Sulistyowati, Erish Widjanarko, Aris Wahyu Widodo, & Hariyanto Triwibowo*
 No. Register: S00201508354, February 2015
 No. Certificate: IDS000001521, November 2016
 No. Claim = 1 (one)
 Ministry of Law and Human Right, Indonesia.



7. **Paten: Evaporation-Distillation for Salt Brine**(Alat Evaporasi-Distilasi Air Tua Garam).
Inventors: *Intan Baroroh, Bagiyo Suwasono, Ali Munazid, Ifan Rido Suhelmi, Aris Wahyu Widodo, & Hariyanto Triwibowo*
 No. Register: P00201501148, December 2015
 No. Certificate: process until now
 No. Claims = n/a
 Ministry of Law and Human Right, Indonesia.



8. **Simple Paten: Iodine Fortification with Mixer Gradual**
 (Alat Fortifikasi Yodium dengan Pengaduk Bertingkat).

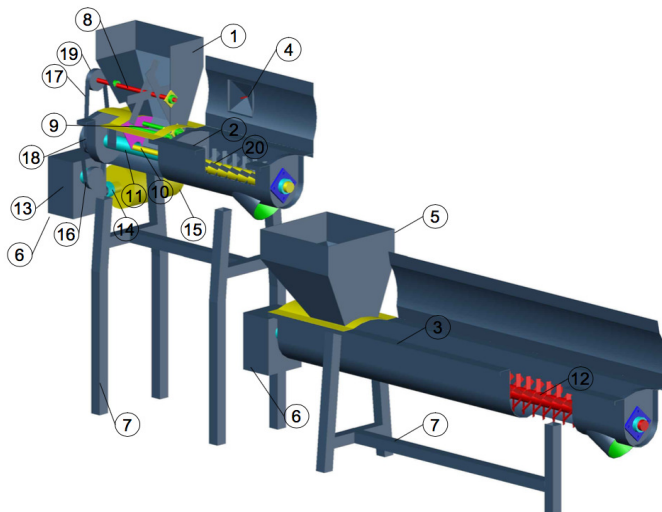
Inventors: Bagiyoso Suwasono, Ali Munazid, Intan Baroroh, Didik Hardianto

No. Register: process until now

No. Certificate: n/a

No. Claims = n/a

Ministry of Law and Human Right, Indonesia.



9. **Media Electronic**

a. Ministry of Marine Affairs and Fisheries



Link: <https://goo.gl/QNNKdg>

b. SCTV



Link: <https://goo.gl/6kpv7>

Proposer

Surabaya, February 7, 2018

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