



## MANAJEMEN RISIKO PADA RANTAI PASOK GARAM MADURA

### INTISARI

Garam merupakan komoditas strategis yang berperan penting bagi sektor pangan dan industri di Indonesia, namun pelaku dalam rantai pasok garam masih menghadapi berbagai risiko yang berdampak pada kualitas produk serta proporsi biaya logistik, terutama di Madura sebagai sentra utama produksi nasional. Penelitian ini bertujuan untuk mengidentifikasi, menganalisis, dan memitigasi risiko pada setiap tier rantai pasok garam Madura, sekaligus menilai kualitas produk yang terdampak risiko. Penelitian menggunakan metode *Rapid Agricultural Supply Chain Risk Assessment (RapAgRisk)* yang mengacu pada ISO 31000:2018. Data dikumpulkan melalui observasi lapangan dan wawancara mendalam terhadap 64 responden yang terdiri atas petani, pengepul, pedagang besar, dan pengecer di Kabupaten Sampang dan Sumenep. Analisis risiko dilakukan menggunakan matriks *probability*, *severity* dan *capacity to manage risk*, sedangkan analisis mutu meliputi pengujian kadar air dan NaCl. Hasil penelitian menunjukkan 17 jenis risiko utama, dengan risiko tertinggi pada tier petani berupa curah hujan tinggi dan penyimpanan di tempat terbuka (kategori *high expected loss* dan *high vulnerability*). Uji mutu menunjukkan bahwa pada kondisi risiko panen dini (R.T.2) kadar air mencapai 5,21% dan NaCl 92,38%, sedangkan pada risiko kontaminasi lumpur akibat geomembran bocor (R.T.5) kadar air meningkat hingga 8,70% dan NaCl menurun menjadi 87,29%. Nilai kadar air pada R.T.5 melebihi ambang batas SNI  $\leq 7\%$ , menandakan penurunan kualitas akibat pemanenan yang terlalu cepat karena faktor cuaca, sementara seluruh sampel yang terdampak risiko belum memenuhi standar SNI  $\geq 94\%$  untuk kadar NaCl. Strategi yang diusulkan pada dua risiko prioritas meliputi penyediaan tandon untuk menampung air tua agar tidak bercampur dengan air hujan dan pembentukan koperasi garam dengan penyediaan gudang penyimpanan bersama yang dikelola dengan sistem sewa.

Kata kunci: RapAgRisk, Manajemen risiko, Rantai pasok garam, Kualitas garam, Garam Madura.



## **RISK MANAGEMENT IN THE MADURA SALT SUPPLY CHAIN**

### **ABSTRACT**

Salt is a strategic commodity that plays an important role in Indonesia's food and industrial sectors. However, actors in the salt supply chain still face various risks that affect product quality and logistics costs, especially in Madura, the main center of national production. This study aims to identify, analyze, and mitigate risks at each tier of the Madura salt supply chain, while assessing the quality of products affected by these risks. The study used the Rapid Agricultural Supply Chain Risk Assessment (RapAgRisk) method, which refers to ISO 31000:2018. Data were collected through field observations and in-depth interviews with 64 respondents consisting of farmers, collectors, wholesalers, and retailers in Sampang and Sumenep Regencies. Risk analysis was conducted using a probability, severity, and capacity to manage risk matrix, while quality analysis included testing for moisture and NaCl content. The results of the study showed 17 main types of risks, with the highest risk at the farmer tier being high rainfall and storage in open areas (high expected loss and high vulnerability categories). Quality tests showed that under early harvest risk conditions (R.T.2), the moisture content reached 5.21% and NaCl 92.38%, while under the risk of mud contamination due to geomembrane leakage (R.T.5), the moisture content increased to 8.70% and NaCl decreased to 87.29%. The moisture content value in R.T.5 exceeded the SNI threshold of  $\leq 7\%$ , indicating a decline in quality due to premature harvesting due to weather factors, while all samples affected by the risk did not meet the SNI standard of  $\geq 94\%$  for NaCl content. The proposed strategies for the two priority risks include providing reservoirs to collect old water so that it does not mix with rainwater and forming a salt cooperative with the provision of shared storage warehouses managed under a rental system.

Keyword: RapAgRisk, Salt supply chain, Product quality, Risk assessment, Madura salt production