



# **PEST MOVEMENT BY FOOD AID SHIPMENT:** ***Indonesia's Experience***



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# MAIN DUTY AND RESPONSIBILITY OF INDONESIAN AGRICULTURAL QUARANTINE AGENCY

To protect agriculture from plant pests and animal diseases and to control the food safety of animal and plant products.



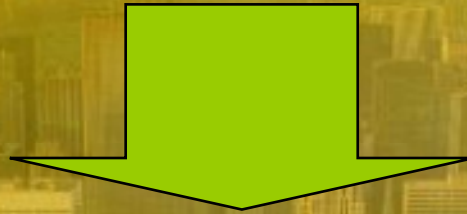
**Indonesian Agricultural Quarantine Agency**



- ❖ 51 : Agriculture Quarantine Service
- ❖ 1 : National Agriculture Quarantine Laboratory



# **INTRODUCTION OF PESTS, DUE TO**



- 1. INCREASE SPREAD AND FREQUENCY OF MEANS OF TRANSPORTATION;**
- 2. MORE DIVERSE, NUMEROUS AND EXPANDED TRADE LINKAGE;**
- 3. INCREASE IN THE VARIETY OF IMPORTS AND EXPORTS ;**
- 4. FOOD AID;**
- 5. INCREASE IN THE IMPORTATION OF FOOD TRADE**



# WHY INDONESIA

Banda Aceh

430+ confirmed  
dead

Epicentre for  
Dec. 26, 2004,  
earthquake  
on the  
scale

**INDONESIA IS ONE OF THE WORLD'S MOST DISASTER  
-PRONE COUNTRIES. HARDEST HIT BY DECEMBER  
2004 INDIAN OCEAN TSUNAMI. THE COUNTRY LOST  
NEARLY 300,000 PEOPLE, AND OVER 60,000 WERE  
DISPLACED.**

**YOGYAKARTA EARTHQUAKE OF OVER 2000 PEOPLE  
DEAD AND OVER 3000 HOMES DESTROYED.**

**OTHER DROUGHT AND EARTHQUAKE**

**(FAO, 2009)**

Gunung Sitoli

NIAS

100 km

290305 AFP

# IMPACT OF TSUNAMI IN ACEH (INDONESIA) 2005



## **IMPACT OF THE TSUNAMI:**

- OVER 100,000 HOUSES DESTROYED;**
- OVER 250,000 PEOPLE DEAD;**
- OVER 100,000 LIVES LOST**

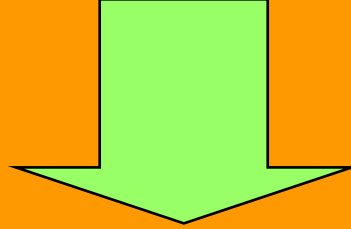


**IMPACT OF THE TSUNAMI:**  
**-OVER 100,000 HOUSES DESTROYED;**  
**-OVER 250,000 PEOPLE DEAD;**  
**-OVER 100,000 LIVES LOST**





# Food aid Transportation

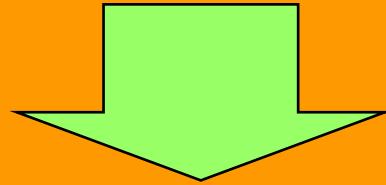


## **FOOD TRANSPORTATION BY FLIGHT**



**HUMAN RELIEF PROGRAM IN ACEH FOR REHABILITATION OF  
TSUNAMI DISASTER**

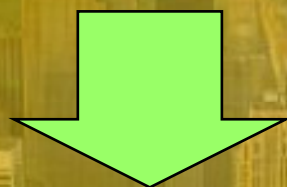
# FOOD AID



| NO | FOOD AID   |  | QUANTITY<br>(KG) | YEAR |
|----|------------|--|------------------|------|
| 1  | RICE GRAIN |  | 24,000,000       | 2005 |
| 2  | CORN GRAIN |  | 300,000          | 2005 |
|    |            |  |                  |      |



# **INTERNATIONAL FOOD AID DURING TSUNAMI AND DISASTER IN IDONESIA (2005-2006)**



| <b>NO</b> | <b>FOOD AID</b>    | <b>QUANTITY (KG)</b> |
|-----------|--------------------|----------------------|
| <b>1</b>  | <b>RICE GRAIN</b>  | <b>17,528,000</b>    |
| <b>2</b>  | <b>RICE GRAIN</b>  | <b>18,000</b>        |
| <b>3</b>  | <b>MAIZE, RICE</b> | <b>75,812,000</b>    |
| <b>5</b>  | <b>RICE GRAIN</b>  | <b>500,000</b>       |
| <b>6</b>  | <b>MAIZE FLOUR</b> | <b>226,576,000</b>   |
| <b>7</b>  | <b>RICE GRAIN</b>  | <b>18,000</b>        |



# **INTERCEPTED PESTS**

**A NUMBER OF PESTS (STORED PRODUCT PESTS)  
AND WEEDS HAVE BEEN IDENTIFIED ASSOCIATED  
WITH FOOD AID**



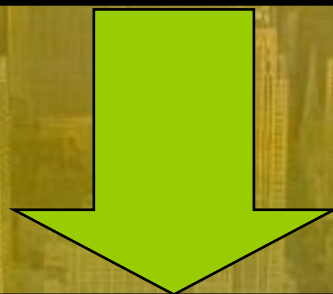


# **QUARANTINE ACTION**

**A NUMBER OF FOOD AID HAS BEEN REJECTED,  
DESTROYED, AND DETAINED DUE TO PHYTOSANITARY  
REASONS AND QUALITY (EXPIRED)**



## **EFFECT OF PESTS (STORED PRODUCT PESTS) ON FOOD AID**



- 1. COST OF TREATMENT (FUMIGATION);**
- 2. DELAY IN DISTRIBUTION;**
- 3. SOURCE OF PESTS DISPERSAL;**
- 4. REDUCE QUALITY**

# Pest Movement by Food AID (Trade)





# FOOD AID TO INDONESIA

**An example of uncontrolled  
rice grain importation to Indonesia  
due to extreme drought condition in the early 1990's:**

**Noxious barnyard grass weed  
(*Echinochloa crusgalli*) has been the main impact in rice  
production area.**







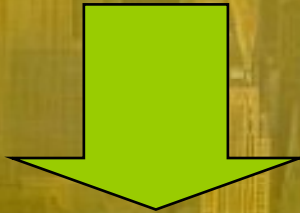
## **IMPACT OF NOXIOUS WEED SPECIES**



- 1. INCREASE COST OF PROTECTION;**
- 2. INCREASE COST OF PRODUCTION;**
- 3. REDUCE YIELD (20 TO 30%/Ha)**
- 4. REDUCE RICE QUALITY;**
- 4. SOURCE OF WEED DISPERSAL;**
- 5. HOSTS OF PEST AND DISEASES;**



## **FURTHER ACTION**



- 1. FOOD AID MUST COMPLY WITH PHYTOSANITARY REQUIREMENTS**
- 1. CLEAN AND QUALITY FOOD AID;**
- 2. CONTROLLING THE INTRODUCTION AND SPREAD OF EXOTIC PEST AND DISEASE;**
- 4. CONTROLLING THE SPREAD OF AGGRESIVE STORED PRODUCT PESTS AND NOXIOUS WEED SPECIES;**





# **CONCLUSION**

**THERE IS EVIDENCE THAT INTERNATIONAL FOOD AID  
MOVEMENTS MAY INTRODUCE PESTS, HENCE  
PHYTOSANITARY REQUIREMENTS  
SHOULD BE COMPLIED WITH**





**THANK YOU VERY MUCH**