

## **Executive Summary**

### **The Evaluation on Noise Environmental Impact Management The Case Study on Suvarnabhumi Airport**

#### **Background**

Suvarnabhumi Airport is the new International Airport of Thailand; the name is given by the King which means “the Golden Land”. The first day operation of Suvarnabhumi Airport on 29 September 2006 has critical effects to the community nearby the airport. The noises from airline activities disturb daily lives of the people living along the take-off and landing routes of the aircrafts such as working, conversation, listen to the music, watching television and others recreation especially sleeping at night. Getting to hear loud noise constantly for a long time may impact hearing capacity of the people. In addition, houses and building also effected by the shaking from the noise of the aircraft. The houses have cracks on the wall and the tiles fell down from the roof in some cases. Therefore people living in the area gather together to protest and demand the government to solve the noise impact as well as the compensation payment for such damages.

The Office of the Auditor General of Thailand selected this topic to be audited, to evaluate the noise environmental impact management from Suvarnabhumi Airport, because this topic is a national problem that may cost up to 12 billion baht in the government budget for solving the problem. The mentioned budget is the compensation to modify the houses of the people who live in the moderate impact area or the cost of purchasing houses or buildings in the high impact area. Moreover, the dissatisfied problem solving would result in the protest which may cause invaluable damage to the 114 Billion Baht Airport and the country image.

#### **Audit Scope**

To evaluate the government operation for the problem solving on the noise environmental impact from Suvarnabhumi Airport to the communities nearby the Airport from the first day of operation, 29 September 2006, up to 30 June 2008.

#### **Audit Objectives**

1. What the government has done in order to mitigate the problems of the people living in the communities nearby Suvarnabhumi Airport who has been affected by the noise environmental impact?
2. Are the measurements in place for solving noise environmental impact problems appropriate and could actually solve the problems?
3. Are there any problems and barriers in dealing with noise environmental impact from Suvarnabhumi Airport?
4. To give the beneficial recommendations in solving the problems.

## **Audit Methodology**

1. Study all documents related to Suvarnabhumi Airport Project as follows;
  - 1.1 The detail of the project overview.
  - 1.2 The Environmental Impact Assessment (EIA) Report.
  - 1.3 The detail of problem situations and the noise affected areas.
  - 1.4 The information on the land and building survey including the compensation budget for the noise impact.
  - 1.5 Noise Abatement Management Guidance for Suvarnabhumi Airport from Aeronautical Radio of Thailand.
  - 1.6 Study report on the specific land planning project of the area nearby Suvarnabhumi Airport.
  - 1.7 The resolution of the Council Ministers for the noise impact problem solving.
  - 1.8 Other related documents from newspapers, internet, articles from other media.
  - 1.9 The information on international practices and measures for solving noise environmental impact from international airport of Great Britain, United States, New Zealand and Hong Kong.
2. Audit methods
  - 2.1 Audit the documents related to Suvarnabhumi Airport Project.
  - 2.2 Inquire the Offices in charge of Suvarnabhumi Airport management such as;
    - Office of the Permanent Secretary, the Ministry of Transport
    - Department of Aviation
    - The Aeronautical Radio of Thailand
    - Office of Natural Resources and Environmental Policy and Planning
    - Pollution Control Department
    - The Airports of Thailand Public Company Limited
    - Department of Public works and Town & Country Planning
  - 2.3 Inquire the experts as follows;
    - The experts from Faculty of Environment and Resource Studies, Mahidol University and King Mongkut's Institute of Technology Ladkrababg to obtain the knowledge about noise measurement and noise impact.
    - The experts from the Aeronautical Radio of Thailand to obtain the knowledge about aviation techniques.
    - The expert from the National Institution of Development Administration to obtain the knowledge about the calculation and identification of the compensation costs.
  - 2.4 Observation
    - Living condition of the noise environmental affected communities
    - Air traffic management at the Aeronautical Radio of Thailand, Suvarnabhumi Airport
  - 2.5 Interview
 

Sample of 118 people living in the 11 communities nearby the Airport to answer the questionnaires about noise environmental impact and the government measures in dealing with such problems.

## **Audit Findings and Recommendations**

### **1<sup>st</sup> Finding: The delay in compensation payment for the people who have been affected by noise environmental arising from the Airport.**

As at 30 June 2008, the people living in NEF (Noise Exposure Forecast) > 40 areas gets the compensation payment only 185 out of 640 households of the survey total or 27.34%, while the people living in NEF 30-40 area gets the compensation payment only 11 out of 15,283 households of the survey total or 0.07%. The cause of delay payment is that the Resolution of the Council of Ministers only stipulates immediate action but did not set up definite timeframe for disbursement, and there is no follow up procedures.

#### **Recommendations**

1. Set up the compensation payment plans, both short term and long term which identify the detail of activities and operation timeframe. The activities should be prioritized according to their importance. The secondary plan must be set in case the major plan will not work out.
2. Continuously communicate compensation plan and the operation progress to the noise environmental affected people.
3. Set up the process and timeframe for compensation rejection to ensure that the noise environmental affected people will be sincerely treated by the government.

### **2<sup>nd</sup> Finding: Government budget increases sharply from problem resolution of the people affected from Airport noise environment.**

The Resolution of the Council of Ministers on 29 May 2007 stipulates the government to pay the compensation to the people living in the communities nearby the Airport for renovating the residents to reduce noise impact creating a burden for the government in the budget amount up to 12 billion baht. The huge amount of budget increase stems from the increase in numbers of residents in impact areas after the government approved the construction of the new airport project in 2001. For example, in the north of the airport construction area, there were 1,871 people asking for the construction permits which increased from 309 people before the construction of the new airport. The government did not give sufficient information and did not communicate the impact of the noise from airport activities to the people. Therefore, the people moved in to live near the new airport expecting progress in the communities. The larger numbers of people moving in the area make the compensation budgets higher than the budget forecast in the EIA (Environmental Impact Assessment) report and make problem solving more difficulty. The amount of budget increased from 887.30 million to over 10 billion baht.

### **Recommendations**

1. Set up a short term measure to mitigate the problems for the people living in impact areas by communicate through the easy to reach media to educate people on how to modify their house to reduce noise impact such as growing trees to absorb the noise.
2. Step up the establishment of the noise measurement stations at the points which have been designed in the EIA report to check compliances of noise reduction measure at the point of origin by designing the take off and landing techniques and flight paths that will create lowest impact required by the Aeronautical Radio of Thailand and set the fine to enforce upon airlines that violate the measure.
3. Set up a long term measure by collecting the noise surcharge from the aircrafts that create over standard level noise and establish the compensation fund for the people who are affected. The Fund Manager should be reliable and accepted by all stakeholders.
4. Set up the noise reduction impact measure for the people living in the impact areas after 2001 which the government and the people share the cost of the noise reduction. For instance, the government pays for the expense on the noise reduction to the accepted level (i.e. 70 decibel); the people who need to reduce the noise less than 70 decibel must be responsible for the addition expenses.

### **3<sup>rd</sup> Findings: The problems of the people affected from the Airport noise have not been yet resolved.**

The Airports of Thailand Public Company Limited had not been solving the problems as stipulated in the Resolution of the Council of the Ministers which insisted on urgent compensation payment to the people living in the noise impact area and improvement of the concrete compensation procedure. In view of the fact that there are still disagreements on the noise exposure forecast areas between the government and the people and the people do not accept the compensation calculation criteria, the problems of the people affected from the Airport noise have not been yet resolved.

### **Recommendations**

1. The Ministry of Transport and the Airports of Thailand Public Company Limited should clarify with the people about the disagreement issues by using the personnel of the educational institutes in the impact areas who familiar with the communities as the mediators.
2. Communicate the study of the National Institution of Development Administration on the cost of the house renovation for the noise impact reduction as well as obtain other different study information to set up the criteria acceptable by all stakeholders.

3. Set up a small noise measurement device in houses located in the conflicting noise exposure forecast areas to ensure that the people will be continuously taken care of by the government. The compensation will be paid to the people once the noise exposure level is getting over the limit of noise acceptance.
4. The government should learn from the Suvarnabhumi Airport 1<sup>st</sup> phase and make adjustment in the expansion of the Airport to the 2<sup>nd</sup> phase in the budget amount of 74 billion baht as well as use the lesson learned with other government projects which may affect the people and environment. The information presenting to the Council of Ministers for approval must be carefully done by conducting studies in all aspects since the change in the Resolution of the Council of Ministers in the same issue would have made some people lose their expected benefits and may cause opposition which will be hard to make them understand.