## **ABSTRACTS**

## **PLENARY SESSION 1:**

Transboundary Haze: The Role of Malaysia and ASEAN

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This paper provides a review of transboundary haze pollution. It defines the issues and traces the history of the episodic haze occurrences since late1980's. The paper also examines the management responses to the challenges both for Malaysia and Indonesia and for all other affected ASEAN member countries. At present, Malaysia and other ASEAN countries are increasingly aced with air quality deterioration due to internal air pollution problems as well as transboundary haze pollution from neighboring countries. The main cause of the internal pollution is the process of economic development while the transboundary pollution, i.e. haze, is intentional land clearing attributed to commercial oil palm and timber plantations, forest fires, illegal logging practices and activities of local small holders. The haze pollution is episodic in nature. The level of pollution is measured by Air Pollution Index (API) which is derived based on five pollution contents of SO2, O3, CO, NO2 and PM10. The 1997 haze episode has affected Malaysia, Singapore, Brunei and Indonesia (Southern Sumatra and Southwest Borneo). All these countries expressed unhealthy conditions for more than 50% of the time while Kula Lumpur and most part of Southern Sumatra recorded hazardous level where API reading exceeded 301. Other haze episodes were recorded in April 1983, August 1990, September 1997, August 2005 and mid July 2006. Management responses on these episodes included setting up of various ASEAN initiatives such as the implementation of regional haze action plan; the Asean agreement on transboundary haze pollution; the Asean peatland management initiative; the zero-burning and controlled burning guidelines; and the activation of the panel of ASEAN experts on fire and haze assessment and coordination. It was estimated that 6 million acres of forest were burned while 70 million people were directly affected by the pollution. The economic cost of the 1997 haze episode was almost USD1.4 billion. Indonesia's losses were attributed to short term health cost while cost to Malaysia exceeded USD300 million mainly from the industrial production losses and lost revenues from big drop in tourism. Singapore lost USD60 million mainly from drop in tourist visits. Long term cost such as damage to health was not taken into account. Transboundary pollution is a multi-faceted problem affecting several ASEAN member countries. An integrated approach is needed to alleviate the problem, including the role of civil societies and the support of the NGOs. The effectiveness of ASEAN cooperation depends not only on full commitment of each member country but also their capacity to meet their respective obligations as stipulated in these agreements and regional plans.