

Trade versus the Environment: Strategic Settlement from a Systems Engineering Perspective

A Presentation by

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ABSTRACT

The key goal of this research is to employ a Systems Engineering approach to conflict resolution to clearly identify the ubiquitous conflict taking place at the local, national and global levels between the basic values underlying trading agreements and those principles providing the foundations for environmental stewardship, and to suggest solutions as to how this most basic of disputes can be responsibly resolved. Subsequent to outlining the current situation involving free trade among nations and associated environmental problems, the positions of both sides in this chronic dispute between trade and the environment are summarized. Supporting the stance of free trade is the fundamental driving forces of profit maximization, while in direct opposition to this market-driven value system are the principles of maintaining a healthy environment and related social welfare objectives. Accordingly, this global clash of values is systematically studied as a game in which the values of the Global Market-Driven Economy (GMDE) are in confrontation with those of a Sustainable Ecosystem (SES) philosophy. A Systems Engineering tool for strategic analysis, called the Graph Model for Conflict, is utilized for

realistically capturing the key characteristics of this type of complex conflict and for providing strategic insights regarding its potential resolution. In particular, a systematic Graph Model investigation reveals that the environment and social standards will continue to deteriorate if the entrenched positions and related value systems of both camps persist. However, based on the strategic understanding gained from this formal conflict study, a number of positive proposals are put forward for resolving this conflict from a win/win perspective, at least in the long run. To highlight inherent advantages of employing a formal Systems Engineering tool for addressing strategic conflict problems, the application is used for illustrating how the Graph Model can be conveniently applied to a specific dispute and comments regarding the capabilities and benefits of the conflict methodology are provided at each step in the modeling and analysis procedure.

REFERENCE

Hipel, K.W. and Obeidi, A., "Trade versus the Environment: Strategic Settlement from a Systems Engineering Perspective", *Systems Engineering*, Vol. 8, No. 3, pp. 211-233, 2005.