### Chapter 11

# Using Systems Analysis and Dynamics to Evaluate Public Private Partnerships with Data and Best Practices from SAFER Santa Rosa

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#### **ABSTRACT**

Public private partnerships have been gaining the interest of emergency management and security-related federal organizations. In 2010, the National Academies Press published a framework for resilience-focused private-public sector collaboration which may be the catalyst for how resilience-oriented public private partnerships are developed in the future (National Academies Press. 2010). Public private partnerships can be utilized to increase citizen awareness and preparedness, to address a specific need in a community, or to accomplish any other function that brings a community and government together. "Utilized correctly, a public private partnership is a win-win situation for all participants" (Hahn, 2010, p. 274). Although perceived as very successful, no prior systems analysis has been conducted on these partnerships. In this chapter, a successful public private partnership is evaluated using systems analysis techniques. Results of that analysis, along with details of the original case study and the public private partnership itself are presented.

#### INTRODUCTION

As indicated by the title, this chapter presents the systems analysis of the case study of a successful public private partnership in the form of a COAD (Community Organizations Active in Disaster). Also included in this chapter are examples from

the case study of one time initiatives that can be partnership driven for those jurisdictions that do not have the political or social will to develop a long term public –private partnership.

Several journals have articles about public private partnerships in one form or another. The Journal of Emergency Management, the Journal

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of Homeland Security and Emergency Management, and the Journal of Business Continuity and Emergency Planning all have printed articles with examples of public private partnerships. FEMA has dedicated an employee in each of the 10 FEMA regions to the development of public private partnerships. FEMA also began hosting public private partnership conferences in 2010 in order to allow participants the opportunity to share best practices, and influence jurisdictions to develop public private partnerships oriented towards community resilience.

In researching this topic it was discovered that public private partnerships are in operation all over the world. These public private partnerships cover a large range of issues as discussed above, but there are gaps in the literature. There are not many journal articles on COADs. Currently, Citizen Corps also has no body of literature with metrics to rate the success of the program. For government funding to continue, there needs to be research on success metrics. There is room for research on the topic of COADs. Due to the multitude of COADs and VOADs (Volunteer Organizations Active in Disasters) in existence, and differing laws and ordinances governing the jurisdictions they operate in, measurable statistics might need to be limited to states or regions. Public private partnerships may well be the way governments accomplish tasks in the future, only time will tell.

#### **BACKGROUND**

Systems analysis has been described as an "approach" that can be used to evaluate a system, where a system is a collection of components or elements. Systems analysis can be used to consider the success or failure to achieve a desired outcome or outcomes by first applying systems analysis principles to design, develop, and then to evaluate the system. Further, systems engineering tenets can be used to implement and maintain

the system. Systems dynamics is used to explore and understand the behavior of a system, and particularly the behavior of complex systems, over time. Public private partnerships comprised of any number of entities, for example those that have been used to increase citizen preparedness or to address a need within a community, can be thought of as a system where the desired outcome is increased preparedness or resolution of the need. This is a crucial distinction. That is, the public private partnership while important is not in and of itself the desired outcome. In fact, public private partnerships represent a set of very complex systems where understanding the overall behavior of the system is extremely important to the real world achievement of such partnerships' goals and objectives.

Taking a systems' analysis approach requires that a comprehensive description of the desired outcome be made first. Without this, it would be impossible to evaluate when an outcome has been realized, whether that outcome meets all the desired goals and objectives, etc. The desired outcome may be the solution to a problem, e.g. a need for building materials may exist if the community is impacted by a hurricane. Or, the desired outcome may be an increased level of something, e.g. an increase in community resilience. The Support Alliance For Emergency Readiness (SAFER) Santa Rosa is a community organization active in disasters (COAD), i.e. a public private partnership whose desired outcomes span both these examples; addressing problems created by disasters and increasing community resilience. The most recent information about SAFER Santa Rosa can be found on its website at: www.safersantarosa.org. SAFER Santa Rosa is considered to be a good example of a successful public private partnership. SAFER Santa Rosa has not comprehensively described what the solutions to problems they would like are nor has it described what increased community resilience would be exactly. Rather, as well be discussed below SAFER Santa Rosa established

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