

Feasibility of Island Emergency Auto-Recovery Programs

After a Natural Disaster

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The Basics:

Qualifying Island Parameters:

- 1. Climate
 - -Tropic to Subtropic
- 2. Size vs Population
- -Distribution of Population
- 3. Physical Isolation from Mainland
- 4. Historic Tsunami/Hurricane Events
- 5. Current-to-Future Environmental Risk to Population

Excluded Parameters:

- 1. Size of Event
- 2. Current Political Atmosphere
- 3. Socioeconomic Status
- 4. Present Preventive Measures

Why the tropics/sub-tropics:

- 1. Elimination of Environmental Risk Factors
- 2. Temperature
- -Negation of possible deaths due to exposure
- 3. Lowers priority for electricity as heat source
- Hurricane Formation
- 4. Diversity of Flora/Fauna to Use as Source of Sustenance
- -Both land and oceanic (in most cases)
- 5. Additional Availability of Fresh Water Via Precipitation



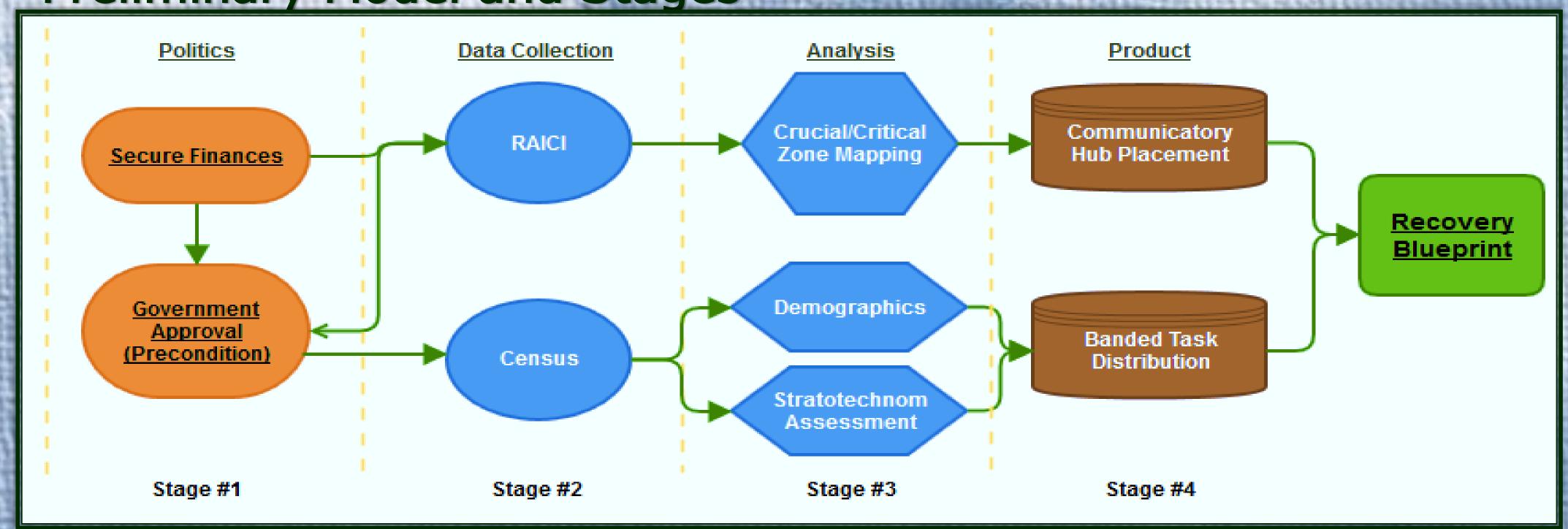
What is an Emergency Auto-Recovery Program?

- ► A preemptive program, enacted by a populace when an extreme environmental shock results in the total collapse of infrastructural, governmental and economic systems, paired with heavy environmental, personal, private and public resources loss.
- ► The EARP is to be used as a tailored guideline in prioritizing communal recovery, without previous intensive training or pre-assigned hierarchical structure, sustaining itself until aid arrives.

What is a RAICI?

- ► The Risk Assessment Island Classification Index is an important tool in assessing the physical, economic and political environments of an island, including disaster histories.
- ► The RAICI catalogues data such as population and its distribution, degrees of isolation from mainland(s), area, demographic stage, etcetera. This is used to ascertain need for an EARP, as well as a general glance on how the Crucial/Critical Zone Mapping will be constructed per island.

Preliminary Model and Stages



Focused Environmental Shocks:

- 1. Hurricane/Cyclone/Typhoon
 - -Storm Surge
- -Flooding
- -Wind Damage
- -Tornado/Water Spout
- -Rock/Mud/Debris Fall/Flow
- 2. Tsunami
 - -Volcanic Eruption
 - -Flooding
 - -Rock/Mud/Debris Fall/Flow

Focus of Individual Programs:

- 1. Potable Water
- 2. Food
- 3. Sanitation
- 4. Shelter
- 5. Basic Medical- Contingent on availability of medical professionals and local hospital procedures

Is it Possible?

From all available information and research, an EARP is feasible. As long as there is funding and government consent, this preemptive planning and training measure can be utilized in case of a major natural disaster to sustain a community until aid arrives.

References:
Woodburn, J. (1982). Egalitarian Societies. *Man*, *17*(3), new series, 431-451. doi:1. Retrieved from http://www.jstor.org/stable/2801707
Team, E. W. (n.d.). Physical Sciences Division. Retrieved December 02, 2016, from http://www.esrl.noaa.gov/psd/data/histdata/

Strömberg, D. (2007). Natural Disasters, Economic Development, and Humanitarian Aid. *The Journal Economic Perspectives*, 21(3), 199-222. Retrieved from http://www.jstor.org/stable/30033741 NOAA. (2002) Exposure Category Zones for the Island of Hawaii. Retrieved from http://media.html./media.html

