

日本ーイスラエル 国際共同研究「レジリエントな社会のための ICT」 平成 27 年度 年次報告書	
研究課題名 (和文)	大規模災害に対する都市レジリエンスの向上：災害管理と社会経済分析のためのダイナミック統合モデルの開発
研究課題名 (英文)	Increasing Urban Resilience to Large Scale Disasters: The Development of a Dynamic Integrated Model for Disaster Management and Socio-Economic Analysis (DIM2SEA)
日本側研究代表者氏名	エリック・マス
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研究期間	平成 27 年 12 月 01 日～平成 31 年 03 月 31 日

#### 1. 日本側の研究実施体制

ワークパッケージ①		Literature Review and Data Collection. (Stage 1)
氏名	所属機関・部局・役職	役割
Erick MAS	Tohoku University / International Research Institute of Disaster Science / Assistant Professor	Compiles the information and gathers related existed work on topics of interest to the project.
Shunichi KOSHIMURA	Tohoku University / International Research Institute of Disaster Science / Professor	Delivers information on damage assessment models and tsunami impact assessment.
Rubel DAS	Tohoku University / International Research Institute of Disaster Science / Assistant Professor	Delivers information on urban resilience and disaster relief support. Also, state of the art in agent based modeling.

ワークパッケージ②		Socio Economic Profiling: Spatial Database Construction
氏名	所属機関・部局・役職	役割
Rubel DAS	Tohoku University / International Research Institute of Disaster Science / Assistant Professor	Compiles the socioeconomic data of population in target areas and the downscaling algorithms.
Erick MAS	Tohoku University / International Research Institute of Disaster Science / Assistant Professor	Gathers the information and creates a spatial database repository.
Shunichi KOSHIMURA	Tohoku University / International Research Institute of Disaster Science / Professor	Contributes on spatial database construction.

## 2. 日本側研究チームの研究目標及び計画概要

In this fiscal year, a compilation of methodologies and approaches for building damage assessment, agent-based simulation, disaster response support systems and long-term urban resilience models is expected. This information consists on the background and baseline for following steps and modeling approach to be used in the project. Similarly, the required spatial data is collected within the target areas in Israel and Japan for model development.

## 3. 日本側研究チームの実施概要

As scheduled by the project, the first stage of the project within this fiscal year (Dec 2015 – Mar 2016) was focused on a comprehensive literature review on topics related to disaster damage assessment, humanitarian logistics, urban resilience and agent based modeling. The Japan and Israel teams have summarized the state of the art on the topics of their expertise and together have started the discussion on challenges and modeling approach to be used at the development stage. In addition, the spatial and non-spatial data to be needed at the modeling stage was collected at the target areas in both countries following compatible area scale for future comparisons. Within this area, hazard and damage assessment models will be developed and the short term modeling of disaster impact will be conducted during the next fiscal year.