BUSINESS AND ECONOMICS EXPOSURE INFORMATION FRAMEWORK

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ABSTRACT: READY ACCESS TO INFORMATION IMPROVES BUSINESS RESILIENCE. THE SAME TYPE OF INFORMATION CAN BE USED TO IDENTIFY BUSINESS VULNERABILITY AND TO PERFORM AN ECONOMIC IMPACT ASSESSMENT IN THE EVENT OF A NATURAL DISASTER. THIS FRAMEWORK IDENTIFIES THE TYPES AND SOURCES OF INFORMATION TO PERFORM ECONOMIC ANALYSIS. AS AN OUTCOME, IT EQUALLY IDENTIFIES THE GAPS IN THE EXISTING DATASETS.

INTRODUCTION

A part of the comprehensive National Hazard Exposure Modelling Framework (NHEMF), this framework will enable end-users to access the relevant data more readily which will in turn help in relief and recovery of the exposed business community in Australia. The same information can be used to establish the capital at risk and the need of disaster resilient approach to enable the business entities to prepare for potential disasters and to respond effectively and cope with the event.

Project Aim: to develop a comprehensive framework which will identify the fundamental data requirements to enable a better understanding of the vulnerability of businesses and economy.

The following objectives are to be fulfilled:

1. To establish the information needs of the end-users including economists and demographers by conducting a review of recent events, case studies and by conducting interviews.
2. To establish the source and the extent of the existing information required for economic analysis.
3. To identify the information gaps based on objectives 1 and 2 listed above.
4. To make recommendations to overcome the gaps in information.

METHODOLOGY

The objectives are achieved:

- By reviewing of published information and conducting case studies of Australian businesses exposed to past natural disasters.
- By extensive consultation with end-users, decision makers and emergency managers.
- By establishing the information needs to conduct economic analysis

TOWARDS EFFECTIVE BUSINESS EXPOSURE RECOVERY

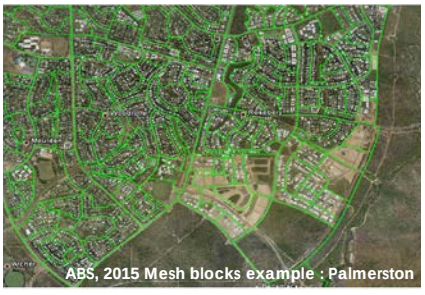
Economic analysis is important to establish how best to intervene to help affected businesses to recover. To achieve this, information about the status of businesses affected are required. The information will assist all jurisdictions to better understand level of assistance needed the affected region. It will also assist in identify the business sector most severely affected. Considering the region affected, the economists attempt to understand:

- The economic impact measured in terms of currency ($).
- Recovery typically measured in term of time.

Type of information needed

Typically the end-users are interested in mapping the businesses affected the natural disasters. Important parameters include business size, geographical location, the number of employees and the turnover range. This information helps towards micro-economic analysis.

Framework adopts Australian Statistical Geography Standard (ASGS), The ASGS brings all the regions used by the ABS to output data under one umbrella. Business information framework level 0/1 consists of two level which are mesh block & Statistical areas level 1 (SA1).



ABS, 2015 Mesh blocks example : Palmerston

Case study: *Cyclone Marcia 2015 and the tourism industry in WA*

The roof on this clubhouse at a Rockhampton

Source: abc

An accommodation hut at Kroompit washed off its foundations by the flash flood

OUTCOMES

Typical sources of data

- Australian Bureau of Statistics (ABS)
- Australian Business Register
- .id (economi.id.com.au)
- Emergency Management Australia
- Insurance Council of Australia
- CLUE Melbourne
- FES, Sydney

Some identified issues with the data:

- Relevant information is not available in one central location and readily accessible when needed
- Inconsistency in the type and method of data collection
- Discrepancy in data from different sources and lack of a method to assess the flow-on effect

Gaps in the available information:

- Fixed cost based on capital can be estimated, but there is no data to allow estimating variable cost.
- No comprehensive database available as the focus of existing data sources are different.