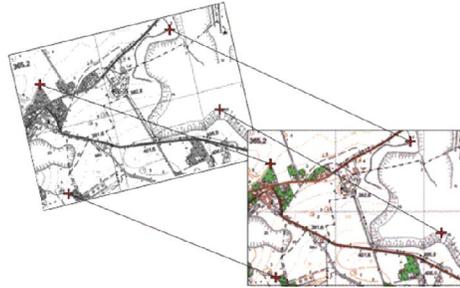


INTRODUCTION

The process of defining how raster is situated in map coordinates.

The process of defining the position of geographical objects relative to a standard reference grid. For example the allocation of geographical coordinates to street intersections.

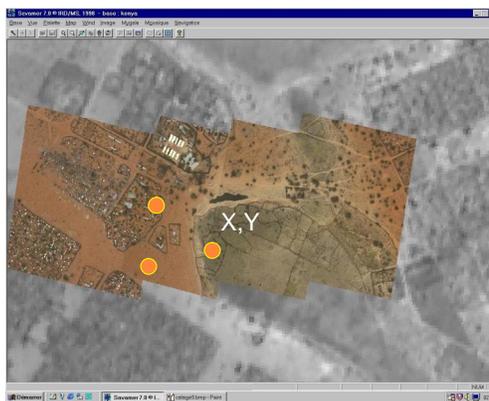
www.thelist.tas.gov.au/docs/glossary/glossary.html



Source: "Georeferencing images and scanned maps" -George McLeod
gep.frec.vt.edu

INTRODUCTION

- Scanned map datasets don't normally contain spatial reference information.
- Information collected from the field has to be put on a platform where the spatial information is there



Source: "Georeferencing images and scanned maps" -George McLeod
gep.frec.vt.edu

CONTRIBUTION OF RS AND GIS IN DISASTER MANAGEMENT

Disaster Mitigation

- Catalogues with spatial component
- Hazard assessment
- Elements at risk mapping
- Vulnerability assessment
- Risk assessment
- Spatial Decision Support Systems

Disaster preparedness

- Disaster plans
- Anomalies in a time series
- Forecasting & Early warning
- Monitoring of an ongoing situation

Disaster relief

- Mapping extent of disaster
- Damage assessment
- Relief coordination
- Evacuation

Disaster recovery

- Post-disaster census
- Identification of reconstruction sites
- Update hazard, vulnerability and risk data bases

MOTIVATION (IMPORTANCE OF SPATIAL INFORMATION)



DATA USED

Scene ID	Satellite/Sensor	Date	Source
ALPSRP096650320	ALOS/PALSAR	2007-11-17	JAXA
ALPSRP096650310	ALOS/PALSAR	2007-11-17	JAXA
ALPSRP096650300	ALOS/PALSAR	2007-11-17	JAXA
ASA_APP_1PNUPA	ENVISAT	2008-09-14	ESA
ASA_IMP_1PNUPA	ENVISAT	2004-05-23	ESA
PR-00CD1355BAC-PO00	ENVISAT	2008-09-25	Vietnam Ground Station
PR-00CD1334A27-PO00	ENVISAT	2008-10-14	Vietnam Ground Station
PR-008A9BCCDA-PO00-1	ENVISAT	2007-11-02	Vietnam Ground Station
PR-00D8AABDE2C-PO00-1	ENVISAT	2007-11-04	Vietnam Ground Station
Whole province	SPOT5	2005	Vietnam Ground Station

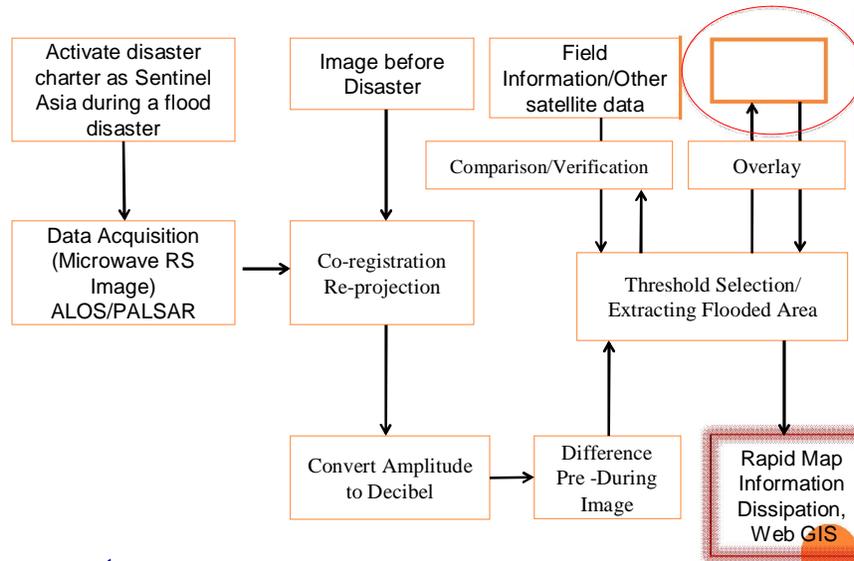
DATA USED: POSSIBLE LOCAL DATA

Layer	Type	Date	Source
Weak_seaport	Point Shapefile	2011	GPS data
Water_tank	Polygon Shapefile	2011	GPS data
Weak_dam	Point Shapefile	2011	GPS data
Safe_area	Polygon Shapefile	2011	GPS data
Permanent_port	Point Shapefile	2011	GPS data
Flooded_mark_2007	Point Shapefile	2007	GPS data



Equipments for fieldtrip to collect and update data and information

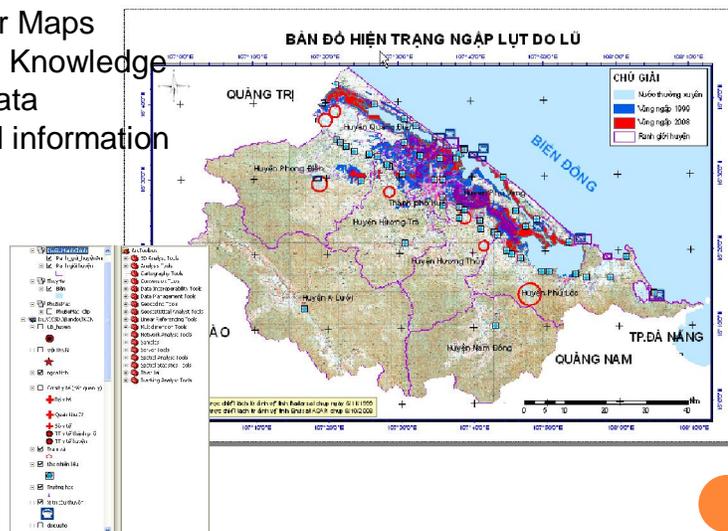
METHODOLOGY



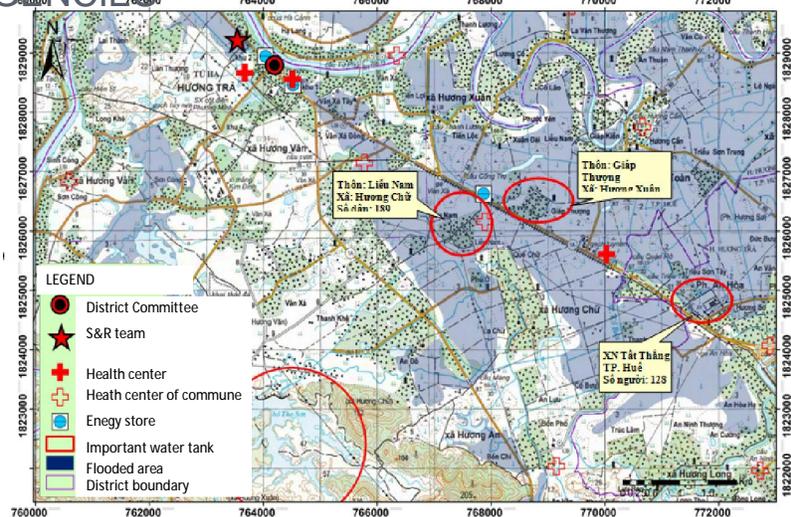
Comment:
Pre-disaster Database and Technology Transfer

OUTCOME: A GIS DATABASE

- Paper Maps
- Local Knowledge
- RS data
- Flood information



OUTCOME: PRODUCT TO SUPPORT LOCAL AGENCIES



Flooding detail of small area (providing for S&R team)

CONCLUSIONS AND RECOMMENDATIONS (BY PARTICIPANTS)

- ⌘ The methodology will help space agencies in supporting disaster management organizations in a search and rescue work.
- ⌘ The results show that in this province, *flood maps achieved by this process are highly accurate and fine in resolution.*
- ⌘ One of the success of search and rescue operations depends on receiving of satellite images immediately after a flood. Sentinel Asia can help us a lot by providing near real time satellite data.
- ⌘ Similar kind of a methodology can be adopted in other provinces affected by floods with a *continuous update of the existing GIS database and field observations of past floods.*

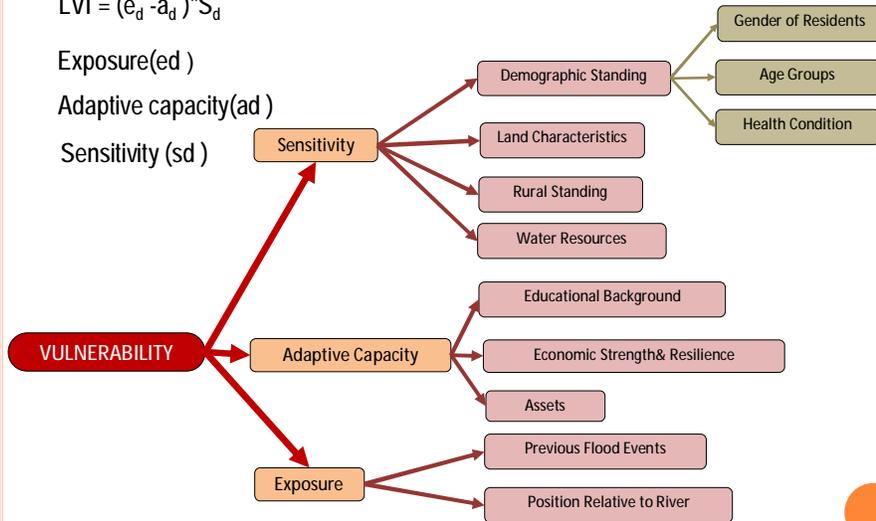
FLOOD RISK ANALYSIS (A CASE STUDY)

$$LVI = (e_d - a_d) * S_d$$

Exposure(e_d)

Adaptive capacity(a_d)

Sensitivity (s_d)



Hahn, M. B., Riederer, A. M., & Foster, S. O. (2009). The Livelihood Vulnerability Index: A pragmatic approach to assessing risks from climate variability and change: A case study in Mozambique. *Global Environmental Change*, 19(1), 74-88.

FLOOD RISK ANALYSIS (A CASE STUDY)



预览已结束，完整报告链接和二维码如下：

https://www.yunbaogao.cn/report/index/云报告?reportId=5_6851

