



*Development of
standardized
information system
containing socio-
economic statistics
and geo-referenced
information by ESCAP*

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Content

- Introduction
- Overall framework
- Georeferencing
- Georeferenced Disaster Management System user interface
- Georeferenced Online Information System for Disaster Risk Management
- Operation and output of the georeferenced platform and system
- Major hardware/ software
- Need of skilled workforce

Introduction

Data types

- Maps,
- Satellite Image
- Tabular Records:
 - Socio-economic data
 - Weather
 - Ancillary records from Govt/ Non-Govt Departments
- Global Positioning System

Various Formats

Different Scale

Different Projection System

Different Coordinate System

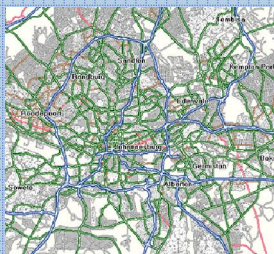
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Diversity of Formats & Data types Types

Maps



Socio-economic data



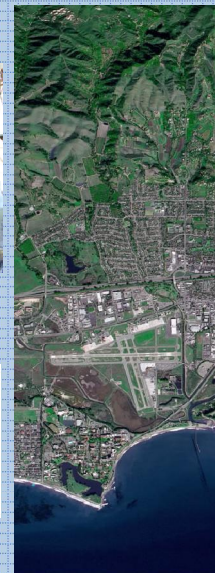
Weather



Global Positioning System

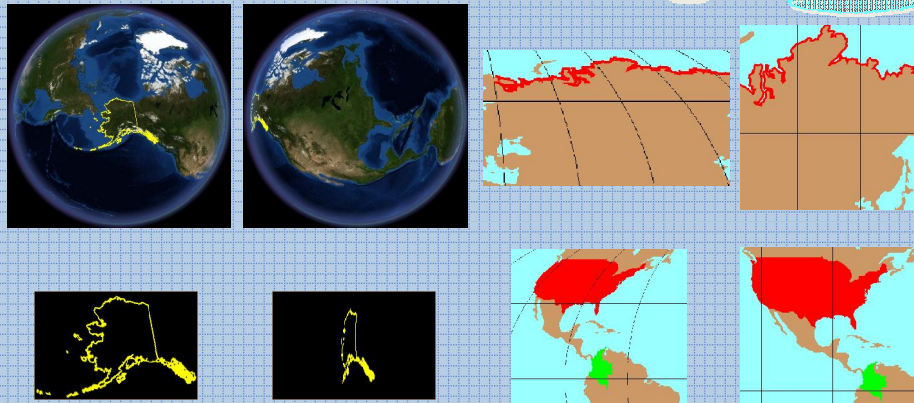
Record ID	Agency	File Name	File Type	File Size	Download
481	Disaster View Ap	Map_25 Jan 2012	48	49 x 1070	20
482	Disaster View Ap	Map_25 Jan 2012	59	52 x 1041	20
483	Disaster View Ap	Map_25 Jan 2012	69	71 x 1040	20
484	Disaster View Ap	Map_25 Jan 2012	72	71 x 1040	20
485	Disaster View Ap	Map_25 Jan 2012	81	70 x 1040	20
486	Disaster View Ap	Map_25 Jan 2012	81	70 x 1040	20
487	Disaster View Ap	Map_25 Jan 2012	81	70 x 1040	20
488	Disaster View Ap	Map_25 Jan 2012	81	70 x 1040	20
489	Disaster View Ap	Map_25 Jan 2012	81	70 x 1040	20
490	Disaster View Ap	Map_25 Jan 2012	81	70 x 1040	20
491	Disaster View Ap	Map_25 Jan 2012	81	70 x 1040	20
492	Disaster View Ap	Map_25 Jan 2012	81	70 x 1040	20
493	Disaster View Ap	Map_25 Jan 2012	81	70 x 1040	20
494	Disaster View Ap	Map_25 Jan 2012	81	70 x 1040	20
495	Disaster View Ap	Map_25 Jan 2012	81	70 x 1040	20
496	Disaster View Ap	Map_25 Jan 2012	81	70 x 1040	20
497	Disaster View Ap	Map_25 Jan 2012	81	70 x 1040	20
498	Disaster View Ap	Map_25 Jan 2012	81	70 x 1040	20
499	Disaster View Ap	Map_25 Jan 2012	81	70 x 1040	20
500	Disaster View Ap	Map_25 Jan 2012	81	70 x 1040	20

Tabular Records



Satellite Image

Different Projection System



Different Coordinate System

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- Can not analyse in GIS Platform due to incompatibility
 - diversity of formats
 - varied scales
 - projection Systems
 - coordinate Systems

The georeferencing system can solve these issues and convert them to a standard system of projection and coordinate.

- This will help these data to be overlaid and analysed in GIS for further analysis
- Information products for – DRR/ DRM

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Georeferencing - Definition

Georeferencing defines the location of an object in three-dimensional physical space. That is, establishing its location in terms of standard map projection and coordinate system

What Does Georeferencing Offer?

- Converts all the dataset to a common base map
- Standardization of coding systems based on NSDI (National Spatial Database Infrastructure) in line with GSDI
- Geodatabase (Geospatial + Geostatistical) on same platform for ensuring seamless data integration

GEO-REF Information Sharing Platform for Disaster Management
Overview of Georeferencing

View link table
 Add control points

The Georeferencing Toolbar

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GEO-REF Information Sharing Platform for Disaster Management

Link	X (Source)	Y (Source)	X (Target)	Y (Target)	Residual
1	300.144570	410.178128	314.900000	41.800000	
2	4212.642703	425.173770	430.900000	41.800000	
3	4252.245720	5269.046275	430.900000	51.800000	
4	128.992726	5248.438470	414.900000	51.800000	

Auto Adjust Transformation: [1st State Polynormal (3rd)] Total RMS Error: []

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Spatial Adjustment of Vector Data

Spatial Adjustment

Layer	Vertex	Edge	End
NH_Topo_1984_corner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NH_UTM18N_NAD27_1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NH_Streets_Clipped	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Editor

- Start Editing
- Stop Editing
- Save Edits

Choose Spatial For Adjustments

What data is your current editing session do you need to adjust?
 -> Greater feature, any features that are selected other adjustment is not required to be added.
 -> All features in their feature:
 [] Topo_1984_corner [] NH_UTM18N_NAD27_1 [] NH_Streets_Clipped

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Image to Image

Open both Images & mark reference point

Marked same point by visualization

Zoom to other Image which need to correct

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Importing Data from Sheets

Attributes of Sheet1\$

LATITUDE	LONGITUDE	DEPTH	DIAMETER
44 22 18.01 N	103 50 21.22 W	-143	3
44 23 02.12 N	103 54 20.12 W	-122	3
44 24 06.54 N	103 53 16.37 W	-145	3
44 17 22.24 N	103 52 32.35 W	-165	3
44 16 18.43 N	103 48 34.52 W	-88	4
44 52 37.22 N	104 02 42.42 W	-85	3

Attributes of Wells

ID	LATITUDE	LONGITUDE	DEPTH	DIAMETER	LAYER
0	44 22 18.01 N	103 50 21.22 W	-143	3	
1	44 23 02.12 N	103 54 20.12 W	-122	3	
2	44 24 06.54 N	103 53 16.37 W	-145	3	
3	44 17 22.24 N	103 52 32.35 W	-165	3	
4	43 16 18.43 N	103 48 34.52 W	-88	4	
5	44 52 37.22 N	104 02 42.42 W	-85	3	

Field Calculator

POP2000 = [POP2000] * [POP1990]

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Table Join in GIS

Shape	FID	County	County	Rain	Total
Polygon	1	Atoka	Atoka	1.80	10.16
Polygon	2	Kowa	Kowa	2.94	13.67
Polygon	3	Nowata	Nowata	1.62	11.90

Shape	FID	LU Code	LU-Code	Description
Polygon	1	2	1	Single Family
Polygon	2	1	2	Agriculture
Polygon	3	1	3	Commercial

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