Technical workshop
On the transport GIS approach harmonization
ESCWA, UNECE and IDB

Beirut, UN House, 9-11 July 2019

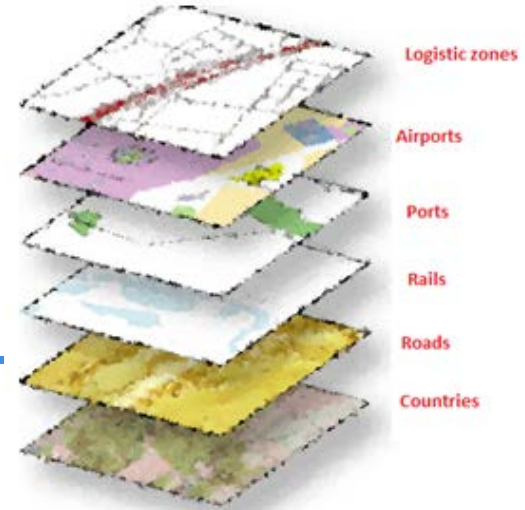Economic and Social Commission for Western Asia

UNITED NATIONS
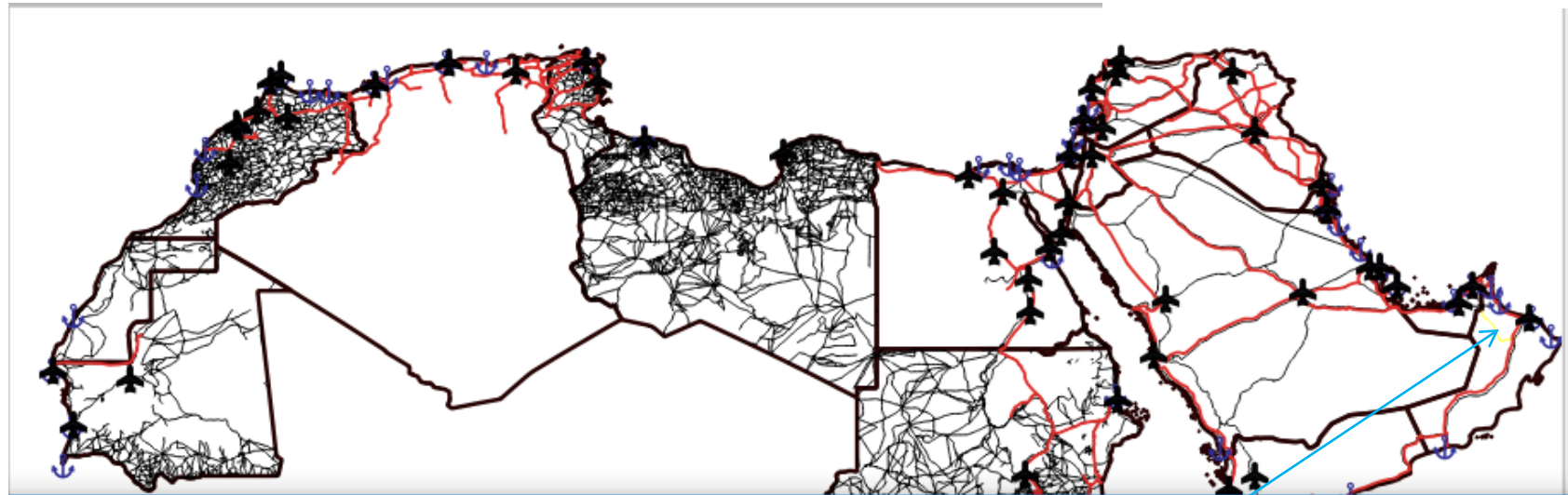
ESCWA

Content

1. Database creation
Desktop GIS

2. Data entering
Web based GIS

1. Database creation:

Terminology:

Layer → Roads. :: Features total: 10579, filtered: 1, selected: 1

FID	OBJECTID_1	Type	RoadNum	RoadRegion	RoadArabic	RoadLength	UID	RdCountry	
28	926	Road	M09	ESCWA	????? - ????	230	NA	Oman	Ex

Feature

Attributes

1. Database creation:

Data sources:

Geometric features :
- Existing data from: the project of ''Capacity Building through cooperation in developing **land** and **land-sea** interregional transport linkages''(2007)
- Diva, Natural earth…

Attributes from the common template

Interregional Cooperation Project in Transport GIS
Initiated by ESCWA-IDB-ECE-CETMO coordination meeting, Beirut 24 April 2018

Tentative Common List of Attributes for Interregional Transport GIS
Draft, 21 June 2018, 2 August 2018

First- Country Level

Nr.	Parameter Name	Definition
1	Area (Square kilometers)	Total Area of the Country
2	Inhabitants (Nr)	Total Number of people residents in the country, including foreigners registered as legal residents
3	Paved Roads (Km)	Total length of all paved roads of all categories
4	Freeways (Km)	Length of roads classified as Freeways out of total paved roads
5	Railways (Km)	Length of all railways lines in the country
6	Road vehicles (Nr)	Number of all road vehicles registered in the country, including two and three wheeled motor vehicles
7	Passenger Cars (Nr)	Number of passenger cars out of total number of vehicles
8	Two and Three-Wheeled vehicles (Nr)	Number of two and three wheeled motor vehicles out of total number of vehicles
9	Trucks (Nr)	Number of Trucks out of total number of vehicles
10	Vehicle Ownership (Vehicles per 1000 inhabitant)	Number of all road vehicles divided by the population (measured per 1000 inhabitant)
11	Passenger Car Ownership (Passenger cars per 1000 inhabitant)	Number of all passenger cars divided by the population (measured per 1000 inhabitant)
12	Total Mobility in the Country (Vehicles. Kilometers)	Total Volume of Kilometers crossed by all Motor vehicles per year of reference in the country
13	Transit Transport (Nr)	Number of all Trucks crossed the country as international transit in the reference year
15	Road fatalities (Nr)	Number of fatalities due to road crashes in the reference year
16	Fatality Rate (Fatality per 100000 inhabitant)	Number of Fatalities of the reference year divided by the population (Measured per 100000 inhabitants)
17	PEAGEVL (from CETMO)	Cost toll- light vehicle : In Euros per kilometer
18	PEAGEPL (from CETMO)	Cost toll heavy vehicle: In Euros per kilometer
19	Clearance (From UN-ECE)	Minimum overbridge height clearance

1. Database creation :Desktop GIS

So - what is a "Desktop GIS"?

*A desktop GIS is a **mapping software** that is installed onto and runs on a personal computer and allows users to:*

1. Database creation: Desktop GIS

Desktop GIS tasks:

Viewing (exploration)

Creation (& extend dataset)

Editing (modify dataset)

Conflation (integrating datasets from different sources)

Transformation (coordinate systems, raster/vector, resampling,…)

Query (new views/selections)

Analysis (new datasets with new information)

Create maps

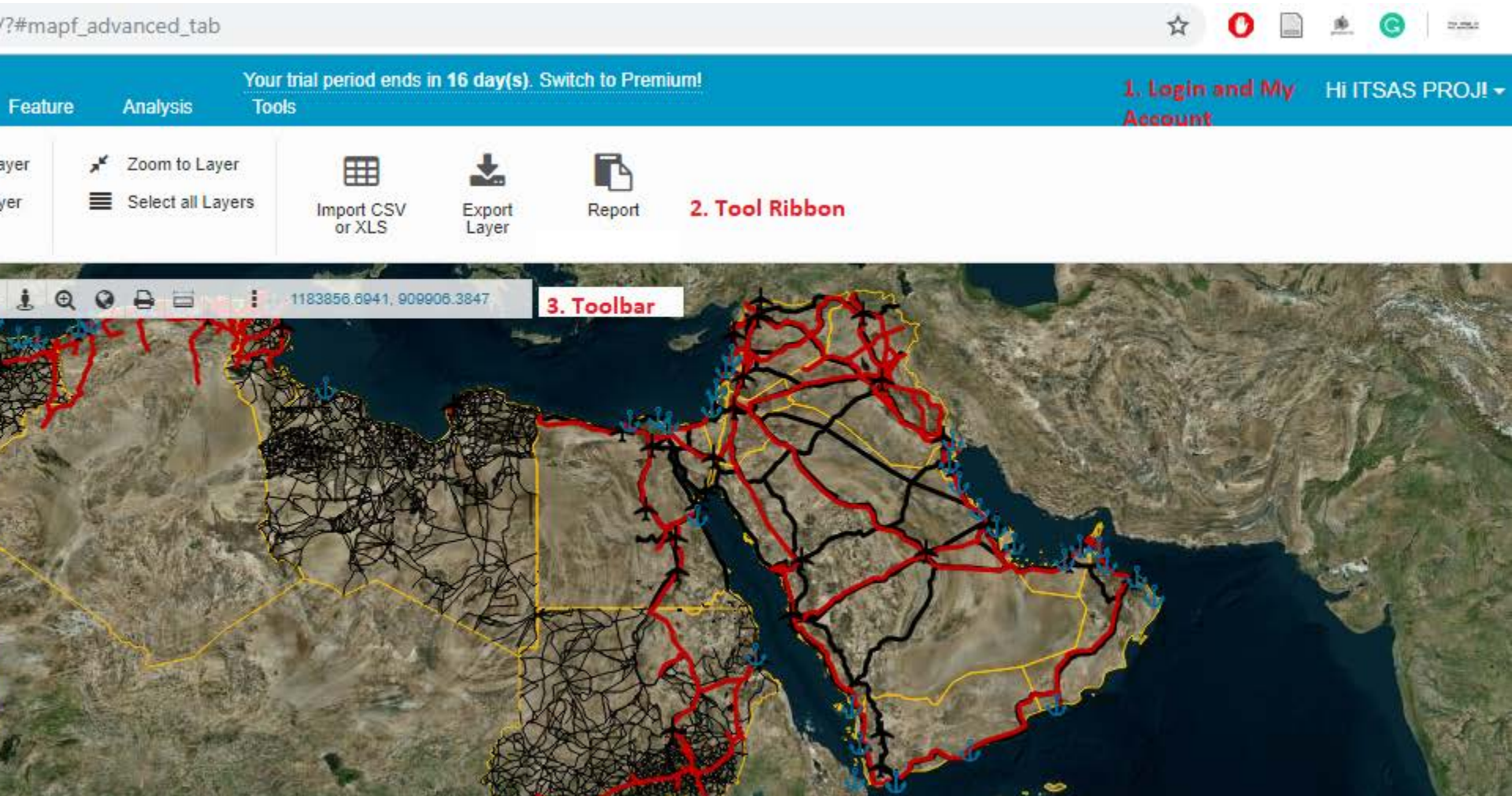# 1. Database creation: QGIS

Main interface:

2- Data entering: Web based GIS

Introduction to Cloud GIS:

1. GIS Cloud is the web based GIS powered by cloud computing that provides full desktop GIS features enriched by the web.

2. GIS Cloud offers easy and efficient visualization, analysis and exploration of geographic information.

3. The primary goals of the GIS Cloud platform is to simplify exchange of geographical information between users and offer an easy way to analyze this information **regardless of the location of its users**.

2- Data entering: Web based GIS

Main Interface:

2- Data entering: Web based GIS

ITSAS data entering

Editing non-geometric characteristics of features

(Day 1)

Countries (25 attributes)

Roads (64 attributes)

Rails (33 attributes)

Sea ports (25 attributes)

Airports (27 attributes)

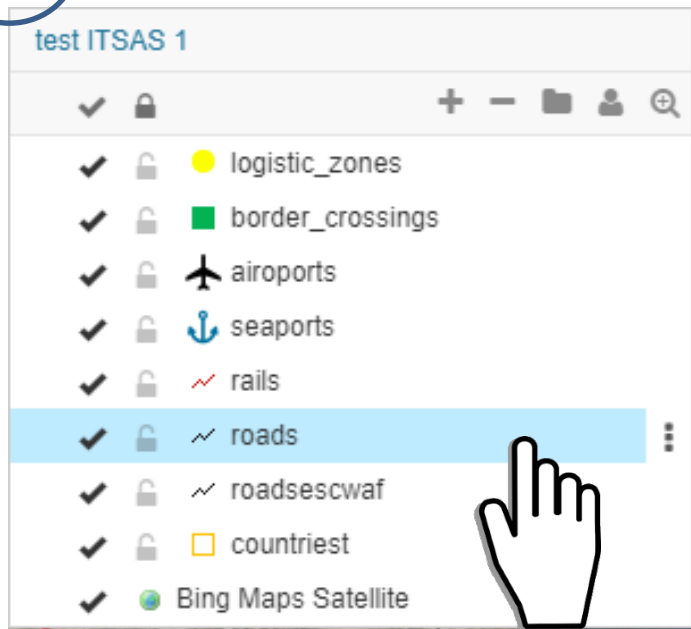**Creating new features** (Geometric + non-geometric characteristics)

(Day 2)

Logistic zones (12 attributes)

Border crossing (18 attributes)

2- Data entering: Web based GIS

Example 1: editing non-geometric characteristics

1

test ITSAS 1

- ● logistic_zones
- ■ border_crossings
- ✈ airoports
- ⚓ seaports
- ∿ rails
- ∿ roads
- ∿ roadsescwaf
- □ countriest
- 🌐 Bing Maps Satellite

2

Edit attributes	Edit geometry	Delete	✕
FID	30		
road_region	ESCWA		
start_node	Artawiyah		
end_node	Hafar El Batin		
fid	29		
type	Road		
roadarabic	???? - ????		
uid	NA		
rdcountry	Saudi Arabia		
rdstatus	Existing		
intlrdsec	Hafar ElBatin - Artawiyah		
intrdname	Kuwait - Yanbu		
snglaxlod	NA		
lanes	NA		

2- Data entering: Web based GIS

Example 2: Creating new features

Thank You for your attention