The establishment of the Regional Soil Partnership for MENA region

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NENA Soil Partnership Conference

17-19 June 2014

Ministry of Agriculture of Jordan

Introduction

FAO-Global Soil Partnership signed a Letter of Agreement with the Jordanian Ministry of Agriculture for the establishment of the MENA Soil Partnership and to initiate regional activities such as the development of the MENA Soil Information System (as an initial test activity).

جانب من المشاركين في الورشة العالمية للتربة

Launch workshop, Amman, Jordan 1-5 April 2012

Aim:

- to start the development of MENSIS Phase I by developing capacities on digital soil mapping starting with the basis of soil legacy data rescue, storing and upgrading national soil maps into WRB system. Other phases are foreseen.

PARTICIPANTS

- 20 countries in the region, though only Morocco, Algeria, Tunisia, Libya, Egypt, Jordan, Palestine, Lebanon, Israel, Syria, Iraq, Iran, Saudi Arabia, Yemen, Oman, United Arab Emirates, and Qatar.

TRAINING

training has been provided in cooperation with ISRIC , RJGC , FAO and MoA also financial incentive is foreseen for implementing the activities. Training program in two parts : to introduce the software, data sets, data bases and **World Reference Base for Soil Resources products**

Field training profile description


Compile
Lineage
Basic principles
Datasets, reports & maps
Soil observations & measurements
Feature (georeferenced profiles & layers)
Attribute (x-y-z-t, map, class, site, layer-fid, layer-lab)
Method (definitions yet to be systematized)
Value, incl. units of expression
Value standardization (Soter conventions)
1. Original data
2. Standardized data
(3. Harmonized data / info
Basic quality control
routine quality control
full quality control

Outcomes

- **Expected outcomes : regional soil profile database and World Reference Base for Soil Resources products.**

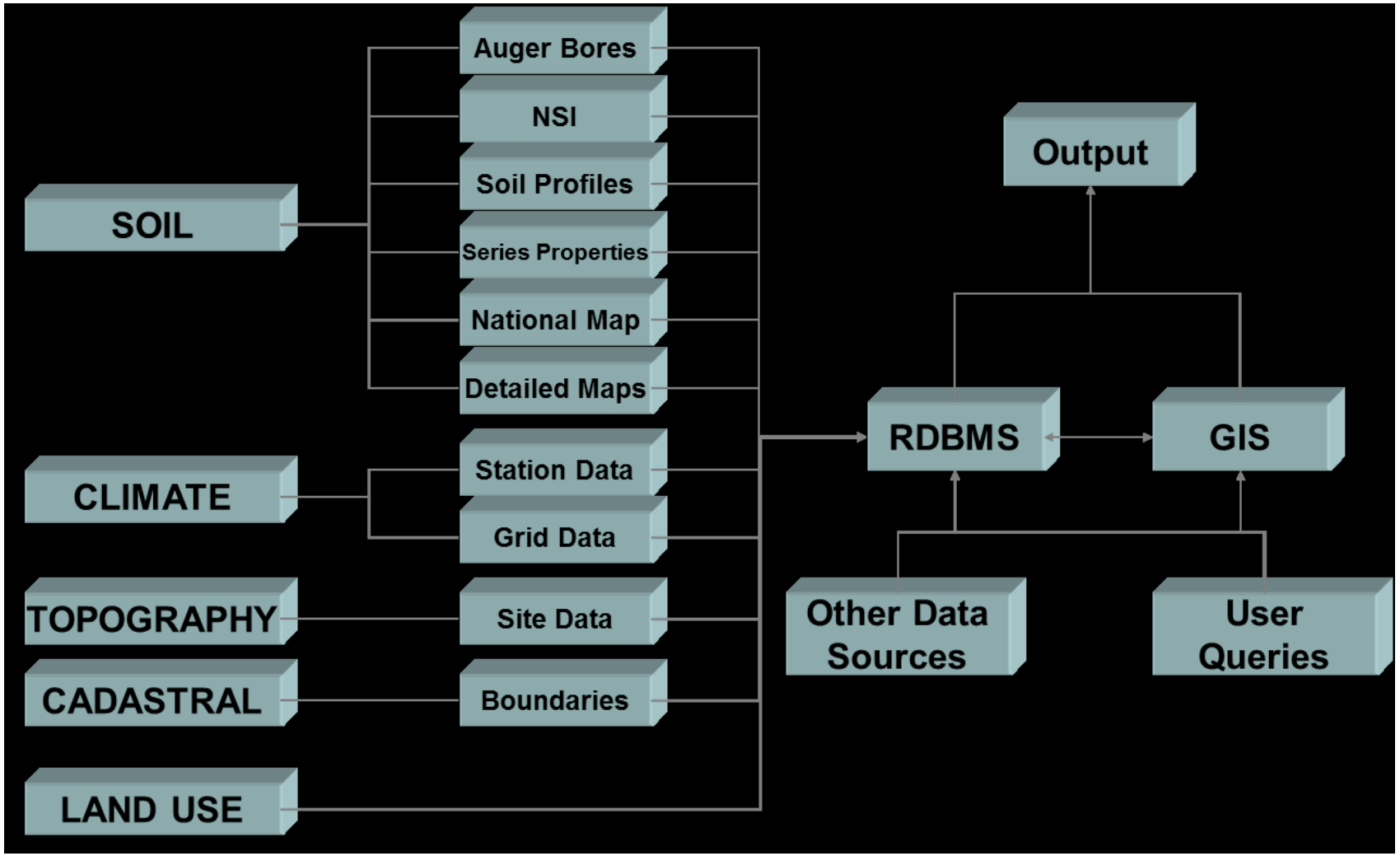
ACHIEVEMENTS

- Launch of the Global Soil Partnership in MENA
- The MoA, and Food and Agriculture Organization-FAO organized a regional workshop to launch the activities of the Global Soil Partnership in MENA . The workshop was held in Amman on April 01-06, 2012 to introduce regional partners, stakeholders, policymakers, as well experts working in the field of soil survey and classification to Global Soil Partnership GSP

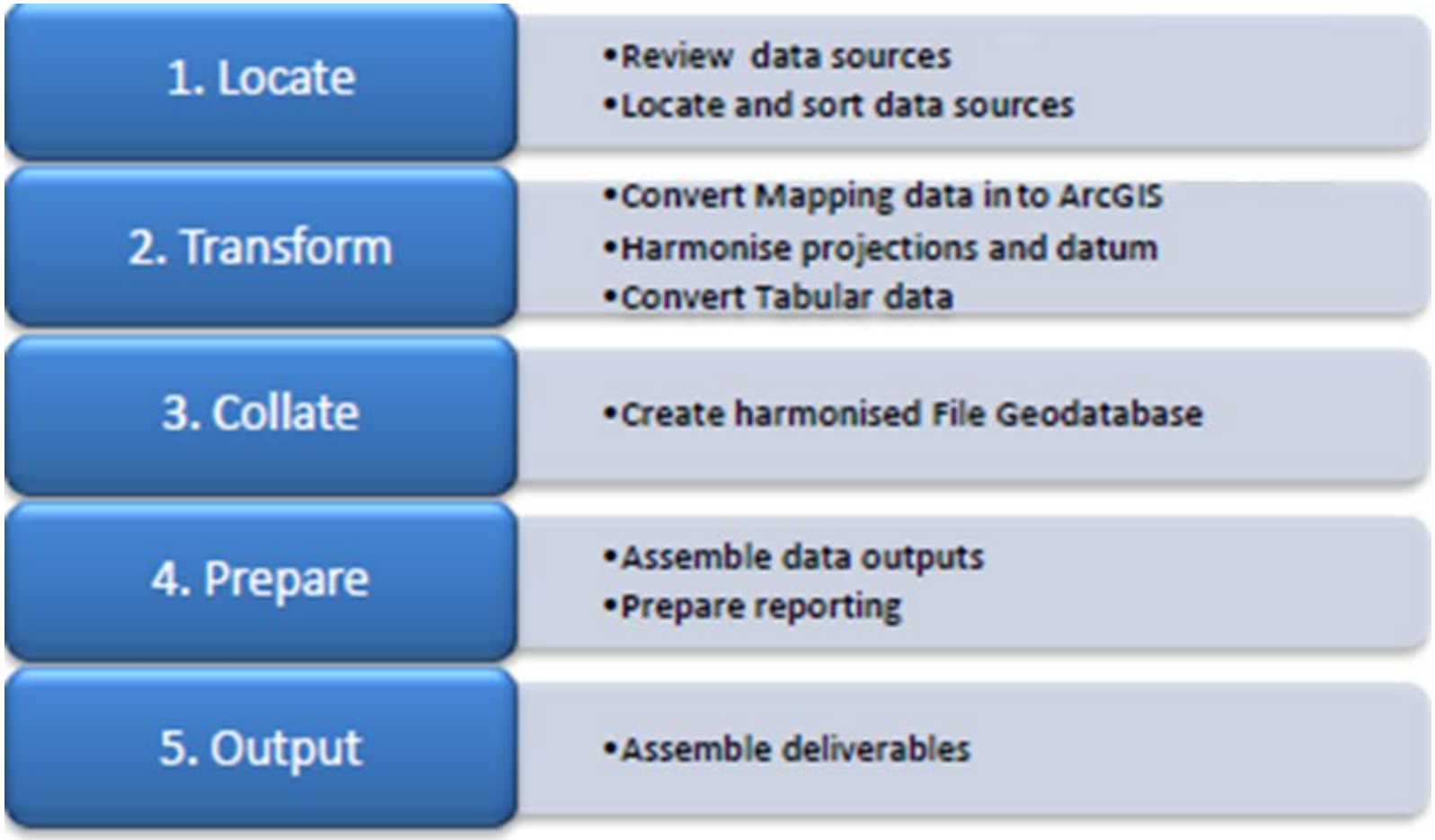
Data Collection, Regional Network

- we *compiling and consolidating existing soil data in Jordan, Tunisia, Lebanon, Iraq, Syria, Palestine and Yemen and is transferring the data to ARC GIS.* Data recollection, assessment is in progress for existing soil maps and soil characteristics information in these counters

LANDIS INFORMATION ARCHITECTURE

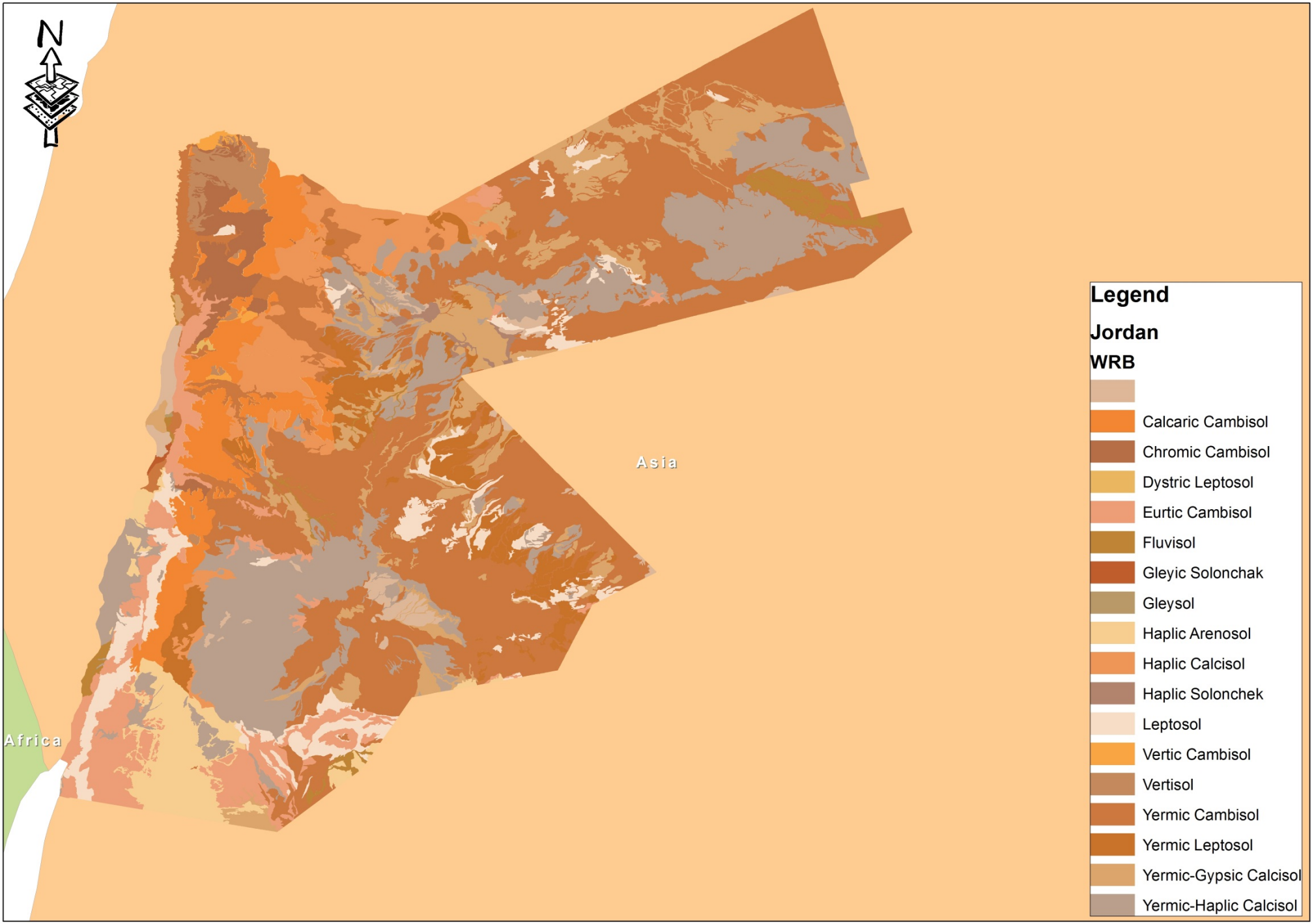


Methodology for preparation of data



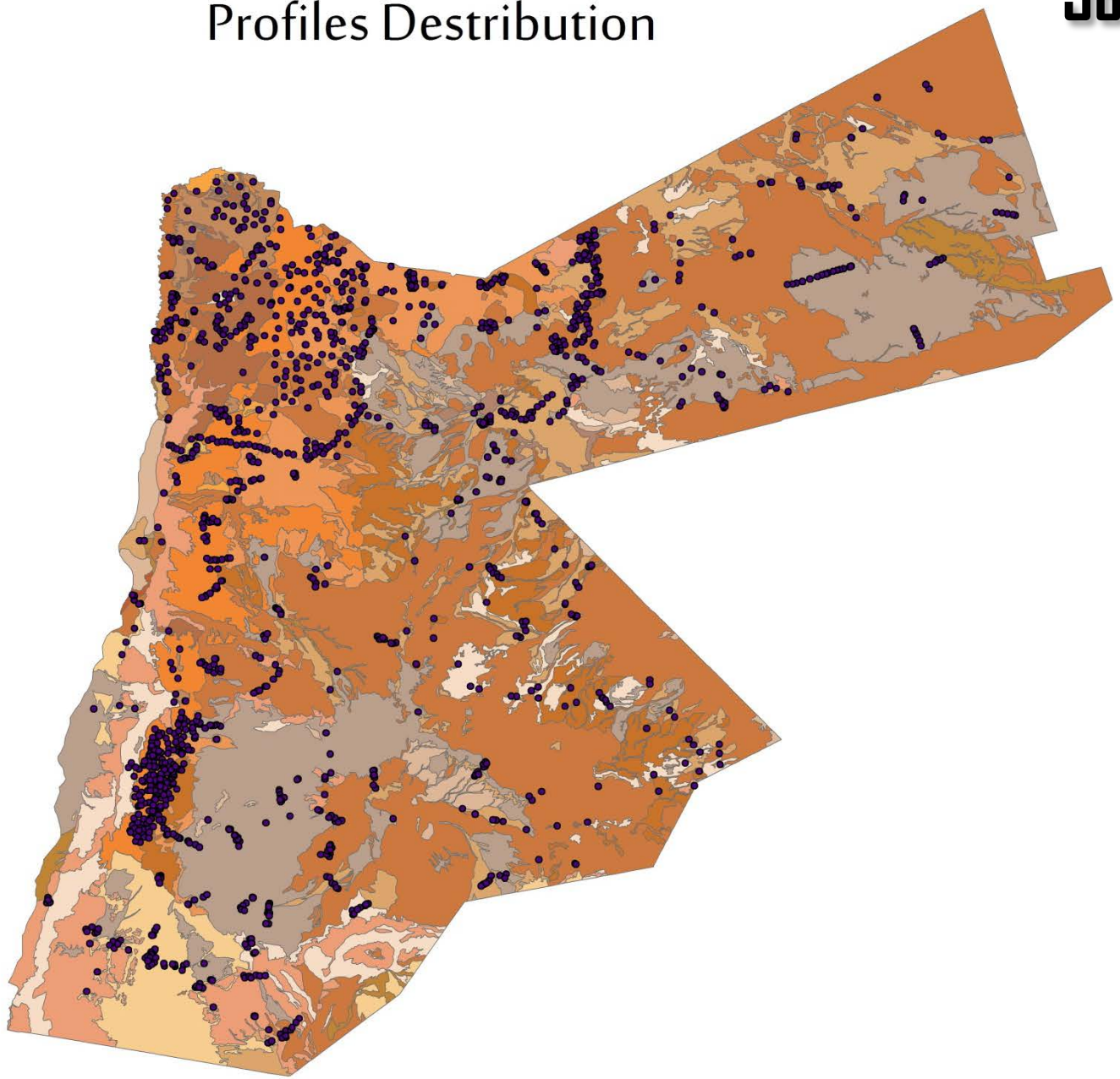

Iran
Libya
Kuwait
Asia
Egypt
Bahrin
Qatar
KSA
Africa
Oman

Jordan Soil map



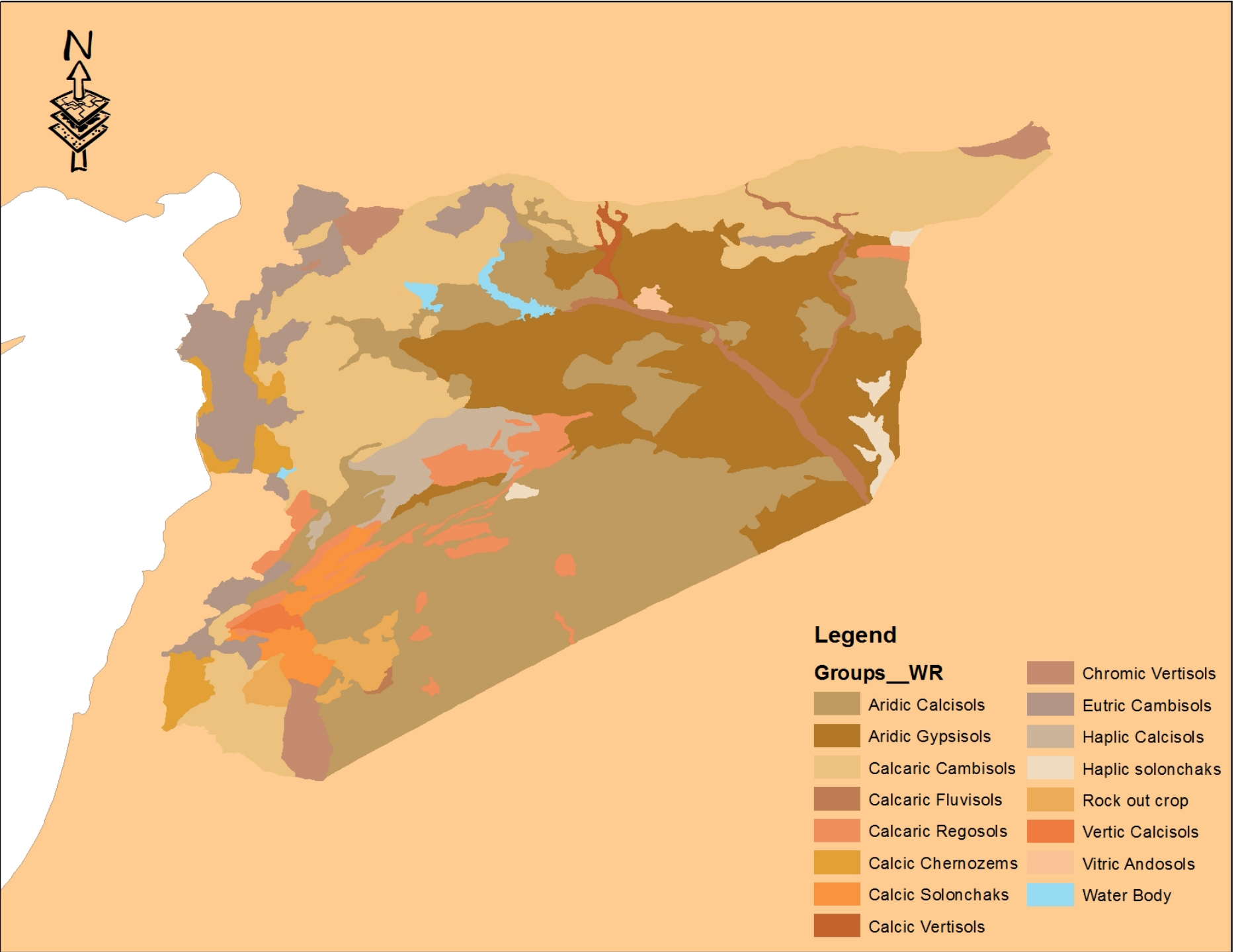
Unit : 17
The big area of unit :
Yermic Cambisol
Calcaric Cambisol
WRB system

Jordan Profile Distribution



1479 profiles

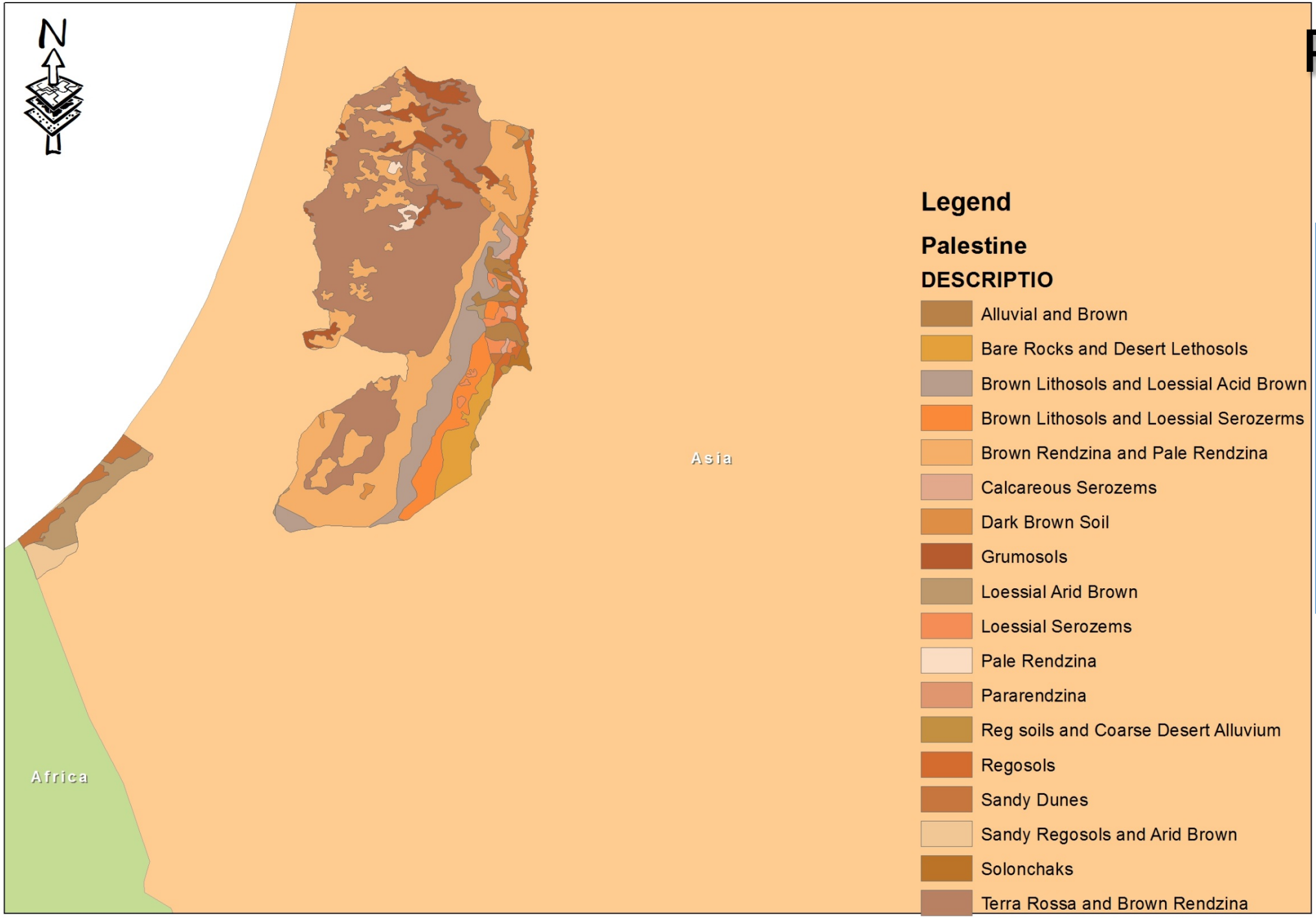
Syria Soil map



Unit : 14
The big area of unit :
Aridic Calcisols

WRB system

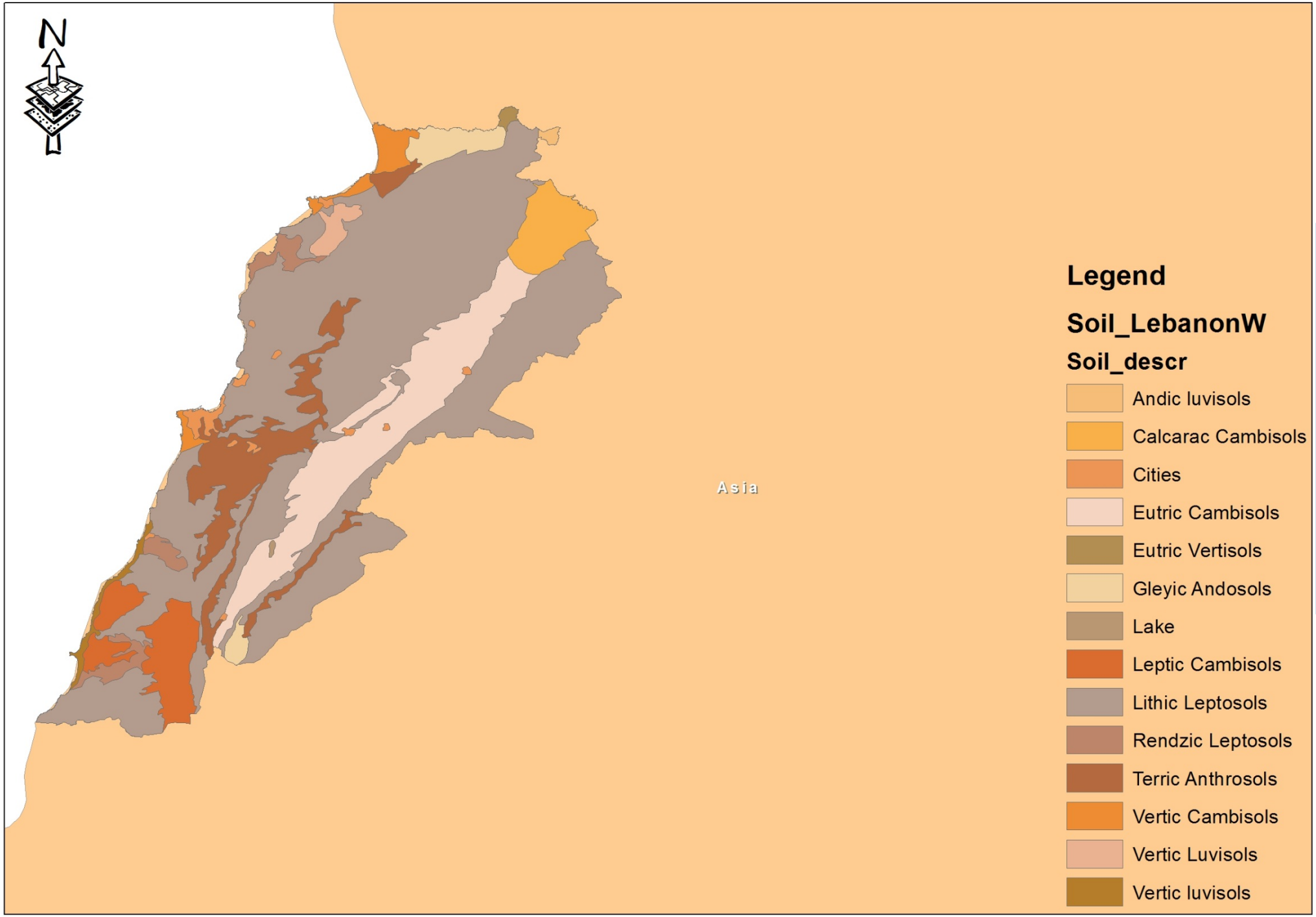
Palestine Soil map



Unit : 18
The big area of unit :
Eutric Luvisols

WRB system

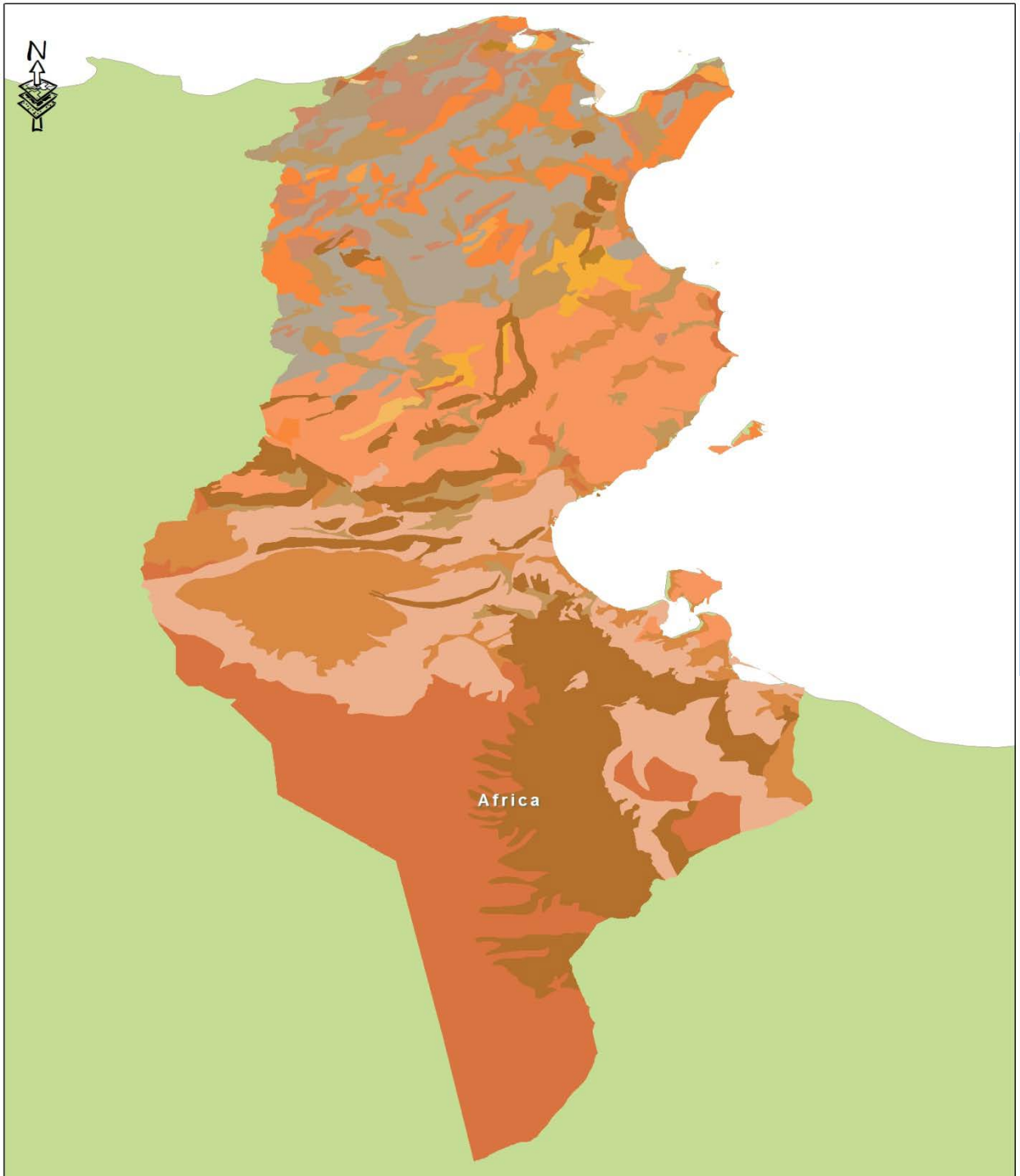
Lebanon Soil map



Unit : 14
The big area of unit :
Lithic Leptosols

WRB system

Tunis Soil map



Unit : 16

The big area of unit :

SOLS A DEVELOPPEMENT FAIBLE A NUL, FORMES SUR DES MATERIAUX NON CONSOLIDES MEUBLES.

WRB system

Legend

TUNISIA_WRB-Soil-Map-1000000

DESC_SOM

- .....
- ND
- SEBKHA
- SOLS A DEVELOPPEMENT FAIBLE A NUL, FORMES SUR DES MATERIAUX NON CONSOLIDES MEUBLES.
- SOLS A FORTE SALINITE DES LA SURFACE A CONDUCTIBILITE ELECTRIQUE ELEVEE, COLONISES PAR UNE VEGETATION HALOPHILE.
- SOLS A HORIZON NATRIQUE, CARACTERISES PAR UNE STRUCTURE MASSIVE.
- SOLS A HORIZON STRUCTURAL, SANS HORIZON CARACTERISTIQUE AUTRE QUE OCHRIQUE.
- SOLS AFFECTES A MOINS DE 50 CM DE PROFONDEUR PAR UNE HYDROMORPHIE QUASI PERMANENTE.
- SOLS ALLUVIAUX SANS HORIZONS BIEN INDIVIDUALISES, GENERALEMENT PROFONDS, PEU POURVUS EN MATIERE ORGANIQUE DISTRIBUEE IRREGULIEREMENT TOUT LE LONG DU PROFIL.
- SOLS GENERALEMENT BIEN STRUCTURES, PLUS OU MOINS PROFONDS, AVEC UN HORIZON DE SURFACE RICHE EN MATIERE ORGANIQUE DECROISSANT EN PROFONDEUR EN MEME TEMPS QUE LE CALCAIRE.
- SOLS LIMITES PAR UNE ROCHE COHERENTE DURE ET CONTINUE A MOINS DE 10 CM DE PROFONDEUR
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- SOLS PLUS OU MOINS LESSIVES A HORIZON ARGILIQUE, LEGEREMENT ACIDES.
- SOLS PROFONDS A PROFIL HOMOGENE , RICHES EN ARGILE GONFLANTE , CARACTERISES PAR UNE STRUCTURE GROSSIERE EN PROFONDEUR AVEC FACES DE GLISSEMENT ET PAR DES FENTES DE RETRAIT EN
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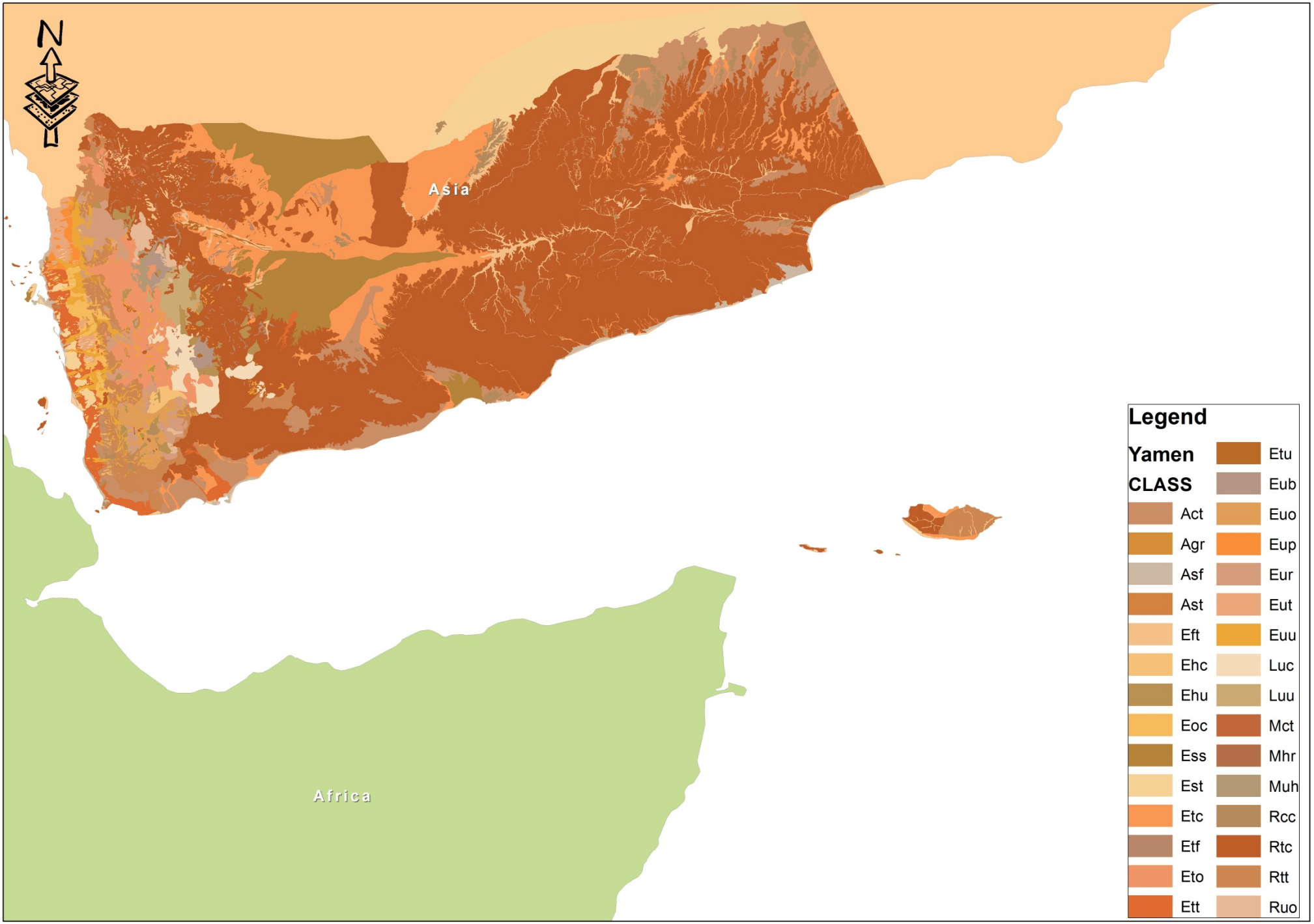
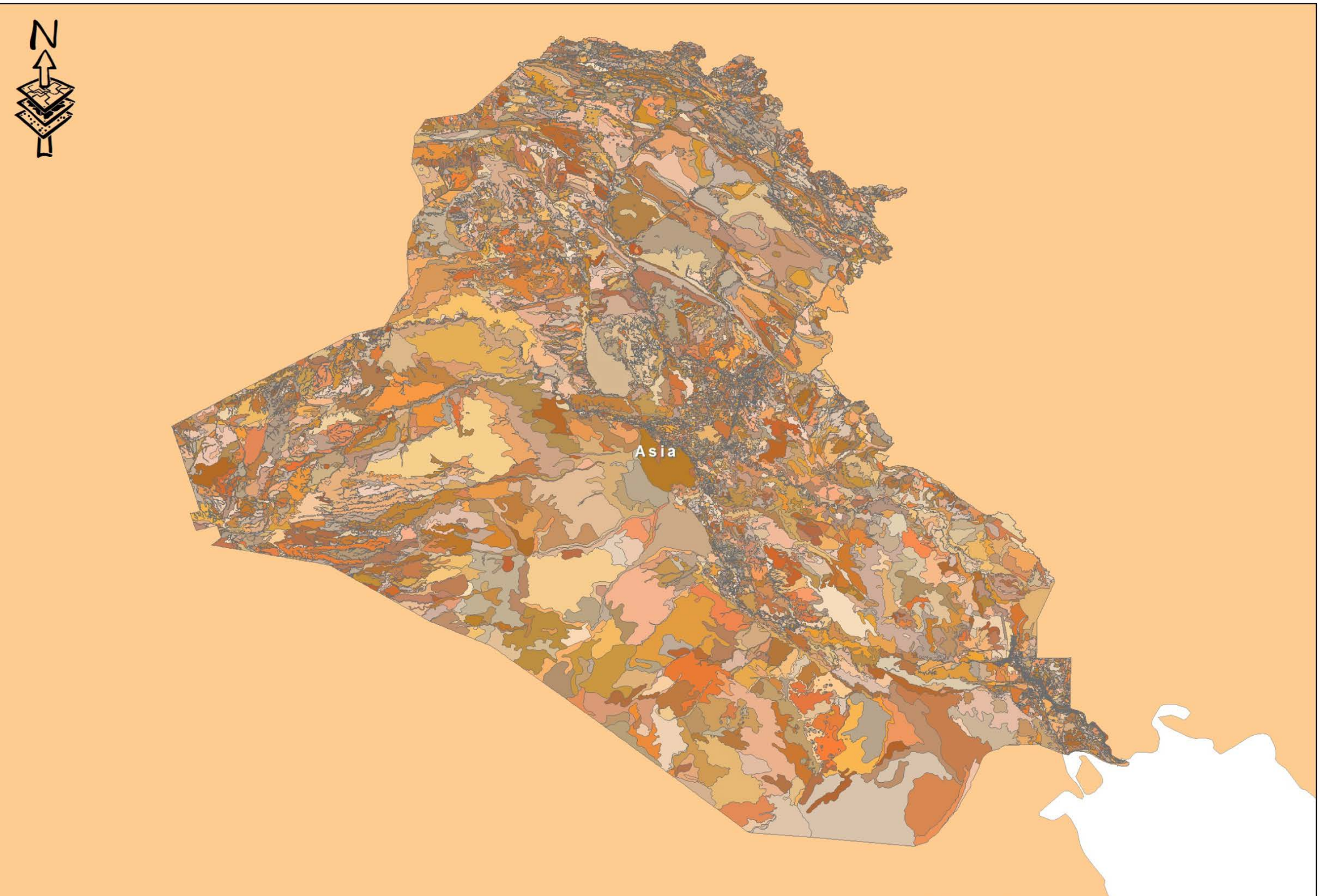
- SOLS SOUMIS A A UN REGIME HYDRIQUE ARIDE, A HORIZON ' A ' OCHRIQUE PEU DEVELOPPE AVEC POSSIBILITE D' HORIZON ' B ' ARGILIQUE, STRUCTURAL, CALCIQUE OU GYPSIQUE.
- SOLS SOUMIS A UN REGIME HYDRIQUE ARIDE, A HORIZON ' A ' OCHRIQUE PEU DEVELOPPE AVEC POSSIBILITE D ' HORIZON ' B ' ARGILIQUE, STRUCTURAL, CALCIQUE OU GYPSIQUE.

Yemen Soil map



Iraq Soil map



1824 profiles

Country	Profiles Georefrances	Profiles classification	Soil WRB	Number of site (Profile)	Number of Unit (Map)	WRB Classification (Map)
Jordan	Yes	Yes	Yes	1479	17	Yes
Palestine	Yes Not complete	Yes WRB(2006)	Yes	64	18	Yes
Lebanon	NO	NO	NO	--	14	Yes
Syria	NO	NO	NO	--	14	Yes
Tunes	NO	NO	NO	--	16	NO
Iraq	YES	NO	NO	1824	-- (8897 ID)	NO
Yemen	NO	NO	NO	--	30	NO

. Maps and profile databases in MENA

- MENA countries are great reservoirs of existing large and medium scale soil maps, many still in paper form. The major limitation of such kind of data is the lack of exact geographic positioning.
- . Collecting profile data is the most time-consuming and costly part of the surveying
- .National datasets are fairly difficult to harmonize.
- .National institutions are not willing to give this data out easily; instead only processed, generalized products are marketed.
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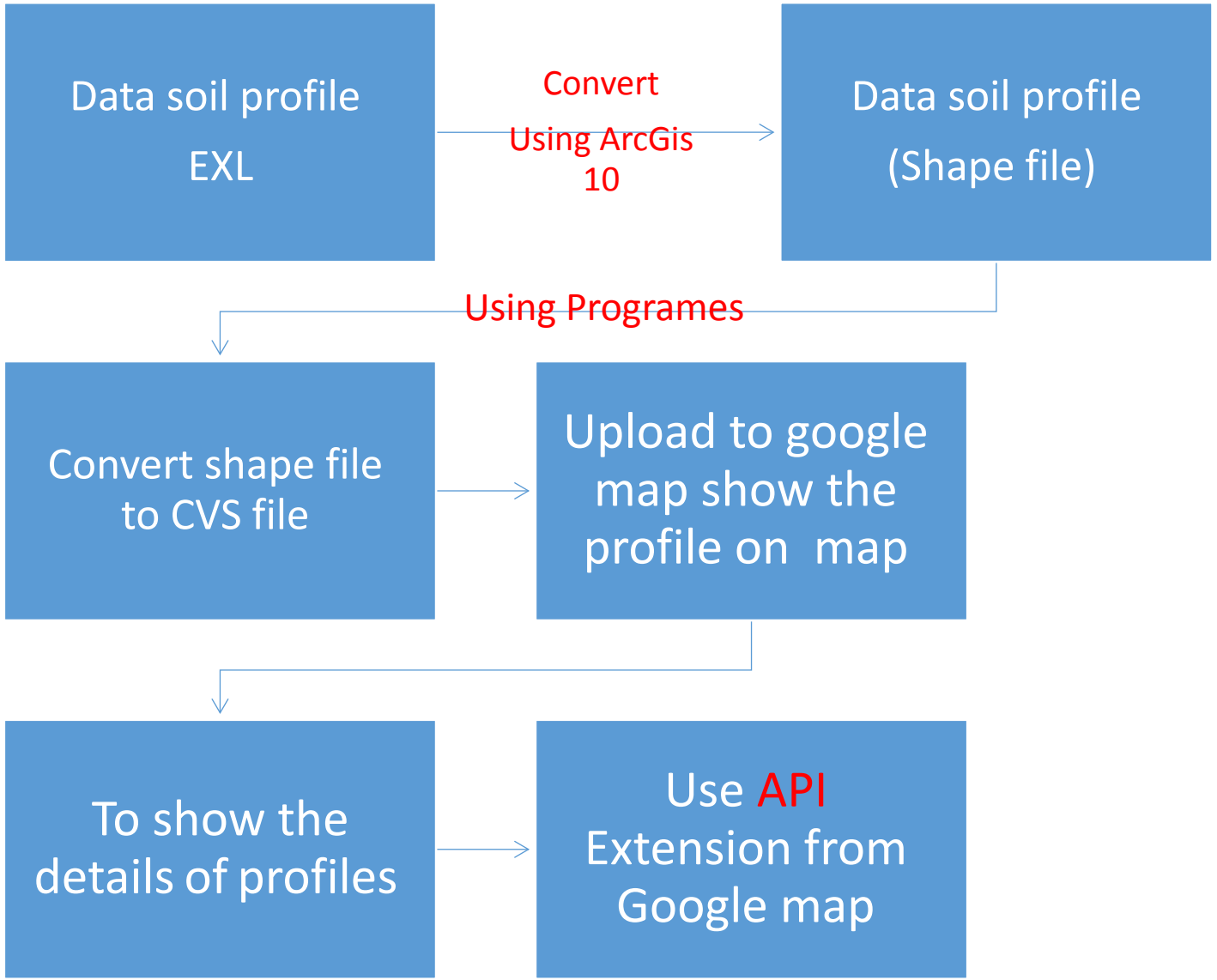
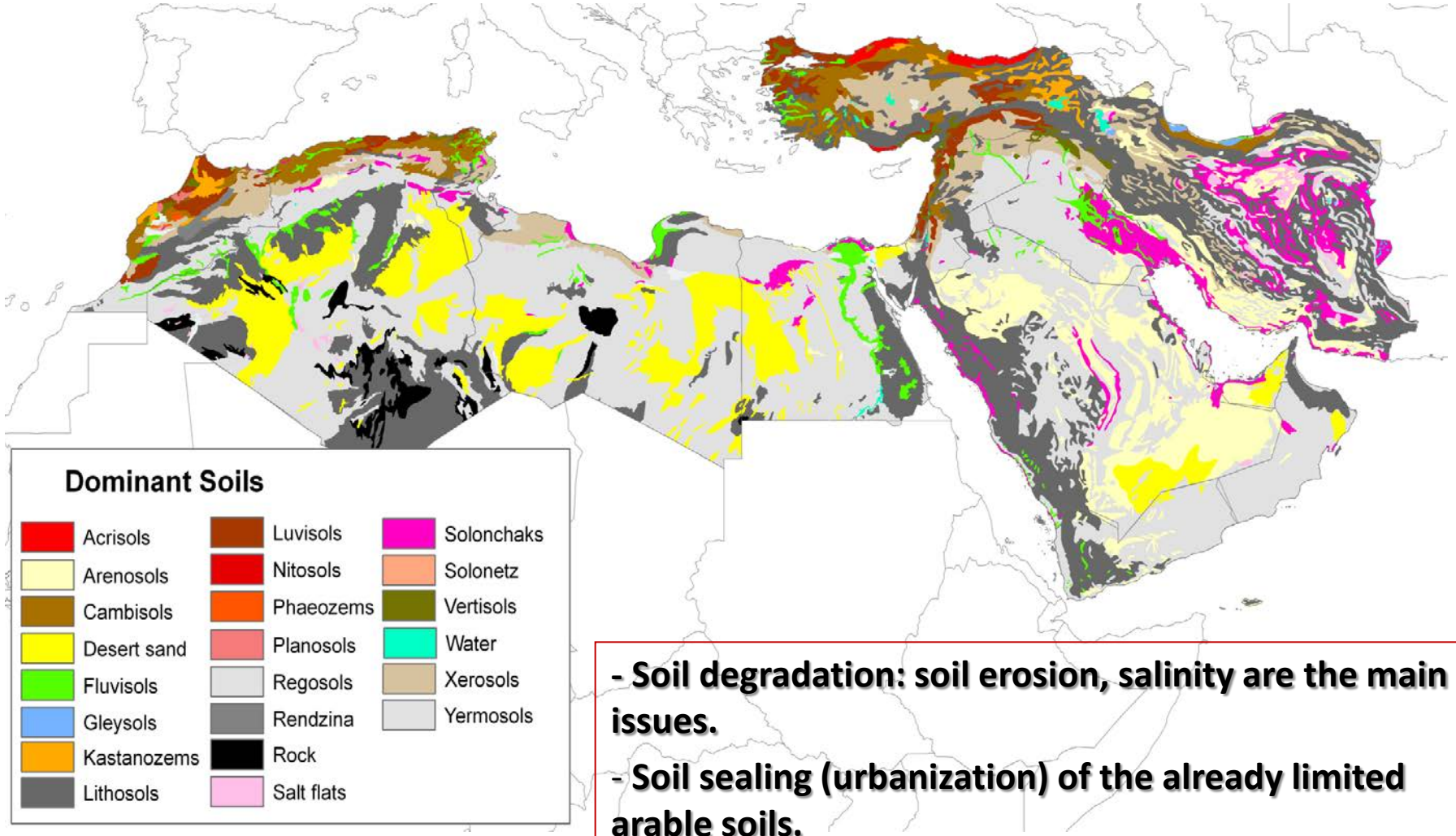

Data soil profile
EXL
Convert
Using ArcGis
10
Data soil profile
(Shape file)
Using Programes
Convert shape file
to CVS file
Upload to google
map show the
profile on map
To show the
details of profiles
Use API
Extension from
Google map

Why addressing soils in the region?



- Soil degradation: soil erosion, salinity are the main issues.

- Soil sealing (urbanization) of the already limited arable soils.

- Need to sustainable increase food production. Need of healthy soils.

The challenges ahead are:

- How to evaluate the quality of the input soil data, observations, classification from an attribute and geographical point of view?
- How to correlate and harmonize existing data sources with different origin, scale, and analysis procedure for NENA -soil database
- If no soil data existed in some part, how to optimize the procedures of this data according to the WRB system?
- How and at what level can the traditional soil mapping techniques be combined to optimize their values in WRB system.

MAIN ISSUES TO OVERCOME FOR A REAL REGIONAL PARTNERSHIP

- Social and political conflicts in the region affects full participation.
- Lack of regional vision limiting regional cooperation.
- Understanding of the concept of partnership (not all understand it).
- Bureaucracy in the national institutions delay the processes as technical people is very committed.
- Limited soil/land staff available in some countries.
- Need of a sound capacity development programme on sustainable land/soil management.
- Increase in investment in soils/land activities is much needed as perception on the importance of soils is not much appreciated in the region.