SOIL SALINITY SURVEY v2.0 (6/2/13)

Small modifications made, regarding soil sampling, shown by yellow shading.

The purpose of this survey is to provide information on the accumulation of salts in the subsoil in the semi-desert areas of the province.

The survey should be carried out as part of either the Rapid Well/Spring Survey or as part of the River Profile Survey. It should not be necessary to organise a separate sampling expedition solely for soils.

Eight locations should be sampled. The following suggested locations are tentative only – they are subject to access and security:

3 on Neogene deposits

- on east side of Shirin Tagab and south of Astana Valley around 36.122 N 64.939 E
- on east side of Shirin Tagab around 36.286 N 64.982 E
- to the south of Maimana around 35.823 N 64.737 E

3 on Quaternary alluvial deposits

- just south of Maimana (but not on agricultural or urban land) c. 35.889 N 64.777 E
- in the Shirin Tagab Valley, near Pata Taba, c. 36.558 N 64.910 E
- in the semi-desert area of Qaram Qul, c. 36.847 N 64.989 E

2 on loess deposits

- just NW of Maimana at around 35.944 N 64.705 E
- between Shirin Tagab and Maimana Rivers in northern part of Shirin Tagab district, e.g. around 36.305 N 64.836 E

These grid references should only be construed as highly indicative - we just want a spread between different subsoil geologies and locations in the catchments.

At each of the eight sites

- Security and possibility of mines should be assessed
- A trial pit should be excavated to around 70 cm by hand. On completion, the trial pit should be photographed. The soils encountered should be described and logged by a geologist.
- The trial pit should be in “natural soil” - i.e. away from main roads, agricultural land or town/urban areas or any source of human contamination.
- Two x 1.5 kg samples of soil should be taken from *around* 40 cm depth in the trial pit. The samples should always be taken from below any organic soil layer. The two samples should be taken from opposite sides of the trial pit.
- two x 1.5 kg samples of soil should be taken from *around* 70 cm depth in the trial pit. The samples should always be taken from below any organic soil layer and from opposite sides of the trial pit.
- During sampling, hand contact with the soils should be minimal. Samples should be taken from the wall of the pit using either (a) an stainless steel, unpainted trowel or spade, or a clean plastic trowel.

- In addition, if any salt horizon or hardpan horizon is encountered, a single sample should be taken.
- Samples should not be taken from below any water table.
- Each trial pit should be photographed and GPS coordinates taken.
- Four samples should thus be taken from each site. Each should be packed separately in geochemical grade strong brown bags / sealable polyethene bags or clean polythene sealable sample boxes.
- Samples should be clearly labelled with location, sample number, date, depth and sampler.
- The trial pit should be backfilled safely after sampling.
- Samples should be stored in the cool and dark and returned to DACAAR's Kabul laboratory for analysis as soon as possible.

Note: all soil samples should have a unique number, which should be recorded in waterproof pen on a label on the soil sample bag and recorded on the field sheet. For example:

NOR-GW-SS-01 40a

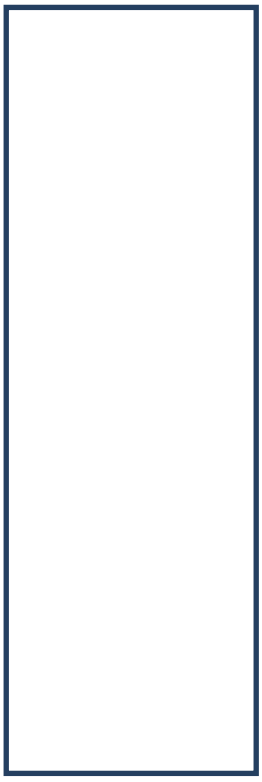
(NOR = NORPLAN, GW = Gurziwan district, SS = soil sample, 01 = sequential number)

This should be followed by one of the following suffixes

40a or 40b = samples collected at 40 cm

70a or 70b = samples collected at 70 cm

LOCATION RECORDING SHEET FOR SOIL SURVEY POINTS

NORPLAN	**SOIL SALINITY SURVEY 2013** **FARYAB PROVINCE**	
District:	Village:	Location name (if any):
Latitude/longitude (decimal):		
Approx. elevation (m asl)		
Land use:	e.g. urban, irrigated land, semi-desert	
Number of photographs Camera reference		
Date and time of photographs		
Soil samples Cm below ground level (bgl)	Sample reference:	Depth (cm bgl):
	Sample reference:	Depth (cm bgl):
	Sample reference:	Depth (cm bgl):
	Sample reference:	Depth (cm bgl):
Sketch and Description of soil profile	Column Depth Description  0 cm 70 cm	
Recorded by:	Date:	Time:
Name:		