Cranfield UNIVERSITY

Report Prepared for the Department for Environment, Food and Rural Affairs

Report of Activity for LandIS Support



Quarterly Progress Report
1st January – 31st March 2011

Report of Activity for LandIS Support
For the Department for Environment, Food and Rural Affairs

by
Caroline Keay, Timothy Farewell, Adnan Younas and Stephen Hallett

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DEFRA Contract No. SP1608
NSRI Contract No. WN32151N

RESPONSIBILITY FOR THIS DOCUMENT
Please contact:
Caroline Keay
National Soil Resource Institute, Cranfield University
Email: c.keay@cranfield.ac.uk
Tel: 01234 750111 ext 2771

CHANGE HISTORY

Version	*Date*	*Summary of change*
1.0	6/4/2011	First Issue

Reference to this report should be made as follows:

KEAY, C.A.; FAREWELL, T.S.; YOUNAS, A., HALLETT, S.H; (2011). Report of Activity for LandIS Support for the Department for Environment, Food and Rural Affairs. Quarterly Progress Report Jan – Mar, 2011, NSRI research report number WN32151N for DEFRA, 8pp.

National Soil Resource Institute
Bullock Building, Cranfield University, Bedford, MK43 0AL, UK
Tel: 01234 750111 ext 2771
E-mail: nsri@cranfield.ac.uk Webs: www.cranfield.ac.uk/sas/nsri/ www.landis.org.uk

Progress with the LandIS Support Contract

Reporting Period: 1 January, 2011 – 31 March, 2011

Adjustment to the LandIS Contract

This document represents the second milestone for the LandIS Support contract SP1608. The funding for this contract was adjusted at the request of Defra on 28th January 2011 to defer a proportion of the budgeted staff time forward until next fiscal year (11/12). The Budgeted staff days have been adjusted accordingly in the LandIS Personnel/Time section of this report.

Update of LandIS Agreement Schedule 1 & 2

The LandIS agreement signed in 1997 and updated in 2003 lists the datasets in LandIS which are covered by the agreement. Over the intervening years these datasets have been modified and substantially renamed and therefore a new schedule was written which shows the current name of the original datasets and identifies new data which has been added to LandIS on subsequent Defra projects. This revised Schedule was sent to Defra on 3rd February 2011 and we are awaiting a notice of acceptance from Defra.

Database Maintenance

No specific maintenance issues are reported in this period. The LandIS 'Virtual Server' continues to provide good service to the project. The service team in the Cranfield University IT computing group provides a high standard of maintenance care and support. An upgrade of the Oracle RDBMS and ArcSDE platform has been planned for summer of this year.

Web Tools Usage

The Soilscapes Viewer is widely used. We are planning a redevelopment of the tool and have accordingly placed a series of requests for feedback from users onto pages associated with the tool. We will collate such comments received and factor these into our design plans.

The Soil Site Reporter (http://www.landis.org.uk/reports/) continues to be used extensively with numbers steadily increasing. In the current period there have been 22 new organisations and 195 new users registered. These include 3 new Universities and 143 new student registrations.

The following figures illustrate the level of response and use of the reporter to-date (figure 1):

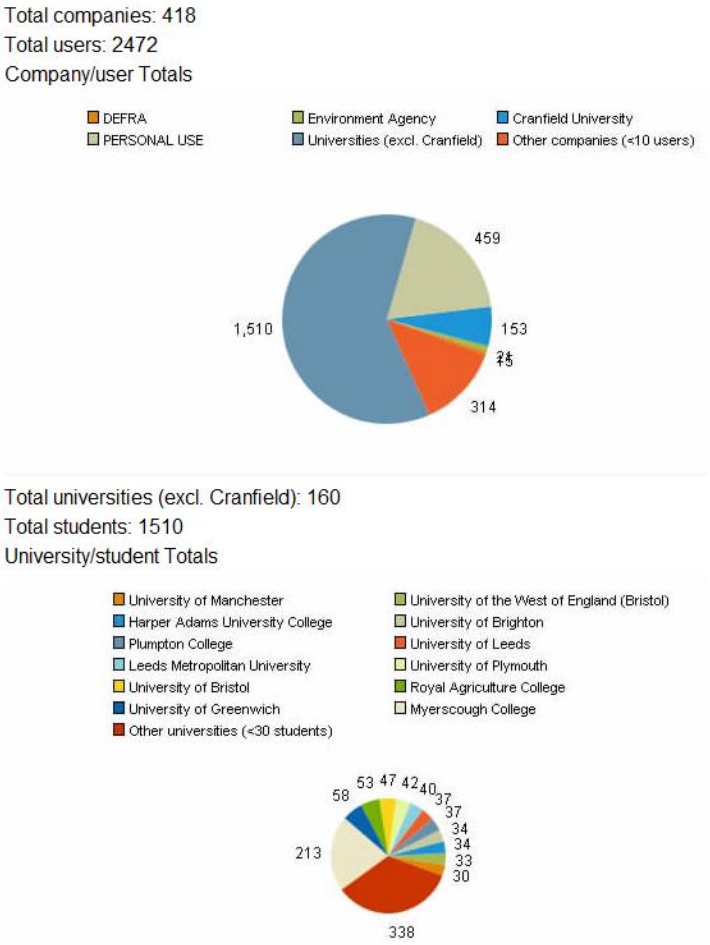


Figure 1 Summary of Soil Site Reporter uptake by user group

Improved Data Descriptions

Work has continued on the preparation of promotional literature for a wide range of LandIS products, designed to allow users to gain a better understanding of the types of information that is available to them through the LandIS datasets. These information sheets include descriptions of the datasets, their uses and applications and illustrative photographs and maps. Informal metadata is also included in these documents, while INSPIRE compliant ISO19115/19139 metadata is available through the Geonetwork metadata server.

These promotional brochures will be available for download in 'pdf' format in the near future on the LandIS website. Equivalent literature for approximately 17 datasets is currently under development, and these will also be placed online when they are complete.

Datasets for which promotional brochures are currently being prepared:

Soilscapes
Drainage
Landcover
Habitats
Fertility
Texture
Treefit
National Soil Map
Soil Corrosivity
Ground Movement
Hydrology (HOST)
Mechanical Rectification
Natural Regeneration
Susceptibility to compaction
Susceptibility of topsoil slaking
Topsoil Texture
Wetness Class

SoilML

Caroline Keay attended a workshop (funded by the EU GS-Soil project) in Hanover, Germany. This workshop was to discuss the testing of the currently evolving data standard ISO28258 specifically designed for soil data exchange. Sample SoilML XML-/XSD files were prepared as part of this exercise demonstrating how Auger Bore data collected during the national soil map programme could be transferred using this protocol. This required the creation of schema description files specific to the auger bore data defining all of the attributes and the range of acceptable values for each.

LandIS Website Improvements

The LandIS website has undergone a series of technical improvements to improve its stability and performance. Files from the legacy website are to be removed from the server and folders restructured. The website news section has been updated.

CEH Meeting

Stephen Hallett recently attended by invitation a meeting hosted by Defra concerning the CEH/BGS initiative 'InformaTec Soils'. Stephen was able to represent the LandIS system and its holdings at this meeting and discussed positive ways to contribute to this initiative. At the time of writing the report of the day is not circulated, however one potential means to progress is to see LandIS soils metadata passed to a newly announced soils portal.

EIONET

Stephen Hallett has also been planning a response to the EIONET request for information for select soils data to be made available to the EU Joint Research Commission (JRC). Information is sough concerning soil organic carbon and erosion risk on a gridded basis.

LandIS PERSONNEL/TIME

Time put down to the LandIS project for the period Oct 2010 to Mar 2011 with budgeted days for Year 1 of the LandIS contract (Oct 2010-Mar 2011) in brackets:

Staff	Time	Budgeted Days
Caroline Keay	21	(21) days
Stephen Hallett	2	(2) days
Timothy Farewell	30	(30) days
Adnan Younas	1.5	(1) days
Sara Larman	27	(30) days
Ian Truckell	1	(1) days
Bob Jones	0	(0) days
Jacqueline Hannam	0	(0) days

Defra Data Lease budget used between 1st October 2010 and 30th March 2011

£1,375 has been spent from the total project budget of £3,120 allocated for Defra projects for this quarter. New data leases this quarter have been highlighted in the tables below as "***NEW***".

COMPLETE LIST OF DATA LEASES FUNDED BY DEFRA VIA THE LANDIS FUND (OCT 2010 – MAR 2011)

Organisation	Abstract	Purpose of Use	Start Date	End Date	P&A	Uncharged Royalty
Data Lease funded by DEFRA via the LandIS fund						
World Conservation Monitoring Centre UNEP	NATMAPvector, NATMAPsoilscapes, NATMAP1000 HORIZONfundamentals & hydraulics, NSItopsoil 1 (carbon), NSItopsoil 2 (carbon Consortium Licence use by: R. H.Young - Nottingham University. & I.Bateman -UEA.	UK National Ecosystem Assessment- Project code 0126. (original licence L0013/00552 Defra)	09-Mar-09	31-Mar-11	£975	£239,040
NEW Defra and the Welsh Assembly Government	1. Wetness class: map showing soil associations in which more than 65% of the association area comprises soils having wetness class IV, V or VI. 2. Maps (with associated shape files) of shallow, stony, coarse, fine textured and peat soils. We would supply	determining Less Favoured Areas in England and Wales. Consortium licence in conjunction with Natural England ref: LC0013/008 and Welsh Assembly Government ref: LC0200/001	01-DEC-10	30-NOV-14	£400	£618,500
				TOTAL (Defra)	£1375	£857,540

Organisation	Abstract	Purpose of Use	Start Date	End Date	P&A	Uncharged Royalty
Bona Fide Research						
University of Lancaster	NSI topsoil data, (including that modified by Pat Bellamy), Ecosse Soil Carbon Dataset . Also outline of England and Wales.	Soil carbon management in UK - PhD research by D. Dennis Konadu	01-Oct-10	01-Oct-13	£375	£12,432
University of Aberdeen & University of Reading	NATMAPvector for England and Wales Examining NVC Community Type Change with climate change. Consortium Licence with Geoff Griffiths (Reading) and Pete Smith (Aberdeen)	For use on Defra Priority Habitats, Protected Sites and Climate Change: DEFRA CR0439	01-Oct-10	01-Oct-11	£975	£75,000
NEW Cranfield University	For the 10km sheet TL04 around Wilstead: NATMAP Vector plus an extract from sheet 147 Luton & Bedford.	PhD thesis on 'Site-specific land management of cereal crops based on proximal soil sensing'	16-MAR-11	28-MAR-11	£0	£225
			TOTAL (Crown and Bona fide Research)		**£1,350**	**£87,657**



https://dspace.org/

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2011-04-06T00:00:00Z

http://dspace.lib.cranfield.ac.uk/handle/1826/6453

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