2012

SWAC/CRC
INTER-REGIONAL WORKSHOP FOR DESERT LOCUST INFORMATION OFFICERS

18-19 April 2012

Cairo, Egypt

Commission for Controlling the Desert Locust in South-West Asia (SWAC)
Commission for Controlling the Desert Locust in the Central Region (CRC)
Desert Locust Information Service (DLIS)

SWAC/CRC Inter-regional Workshop for Desert Locust Information Officers

18-19 April 2012 (FAO/RNE, Cairo)

Introduction

The FAO Senior Locust Forecasting Officer conducted an inter-regional workshop for Desert Locust Information Officers in frontline countries of the Central Region and South-West Asia. The FAO Commissions for Controlling the Desert Locust in South-West Asia (SWAC) and the Central Region (CRC) sponsored the workshop. It was the fifth annual workshop since 2008. Nationally designated Desert Locust information officers (DLIO) from eight countries and DLCO-EA attended the workshop as well as resource persons from the Western and Central regions and FAO[1]. The number of participants was slightly lower than in previous years due to visa issues. Some of these participants were able to follow the workshop via Skype although this was less than ideal due to slow and erratic connections and the inability to actively participate through discussions and presentations.

Programme

Similar to previous workshops, there was no detailed agenda developed in advance; instead, participants created a rough programme and time schedule for the workshop on the first day after discussing their requirements and expectations. This methodology is known as Open Spaces[2]. The results of an online questionnaire that was completed by participants prior to the workshop were also used to develop the workshop programme.

Results of DLIS/DLIO questionnaire

DLIS disseminated an online SurveyMonkey questionnaire as a means to obtain feedback from DLIOs regarding the usefulness of DLIS and the various tools that have been developed for use by DLIOs. The results of the questionnaire are presented in Annex 1.

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[1] SWAC: India (Pramod Gour, Chandra Sharma), Pakistan (Azam Khan, Shahbaz)
CRC: DLCO-EA (Felege Elias), Egypt (Rania Huessein Mostafa, Osama Moustafa, Mohamed Rihad), Ethiopia (Konjit Feleke), Oman (Nassor Al-Harthy, Saudi Arabia (Saeed Turkistani, Hussien Al Bakmani), Sudan (Kamal Suliman, Al Fadeil Ahmed Osman) Yemen (Adel Al-Shaibani, Saeed Al-Mamaary)
FAO: Keith Cressman (DLIS), Hichem Dridi (CLCPRO), Mamoon Al-Alawi (CRC), Essam Mahmoud Khalifah (CRC)
via Skype: DLCO-EA (Mehari Tesfayohannes), Iran (Mehdi Ghaemian), N Somalia (Abdlilahi Egeh Ismail, Mawlid Omer Kowrah)

[2] see http://intouch.fao.org/renewal/teamwork/tools_and_methods/running_teams/, http://www.kstoolkit.org/Open+Space, http://www.openspaceworld.org/.

Suggestions for improved use of DLIO tools

Based on the discussion at the workshop, the following suggestions are made for each of the tools used by the DLIOs:

eLocust2

- indicate crops when in crops; otherwise, indicate dominant habitat
- if there is more than one locust stage present at a survey stop, then the dominant stage should be indicated; otherwise, if there is only one stage present, then *Dominant* is not used
- use survey area = 999 as an Alert (when team has a problem in the field)
- check export file before sending to FAO DLIS
- train field offices to install eLocust2 software if that officer is computer literate
- add photos and contact information of external batteries to Locust Watch
- DLIO must know their habitats, join survey teams
- every survey and control team must use eLocust2 (inform DLIS if extra eLocust2 units required)

RAMSES

- FAO DLIS will put countries in contact with the FAO focal point for Gaul boundary maps so that FAO can obtain the updated maps from the appropriate authorities in each country directly

Remote Sensing

- DLIOs can use only greenness maps or both MODIS and greenness maps

Bulletin improvements

It is suggested that DLIOs try to implement as many of the following suggestions as possible in order to improve further the national monthly bulletins:

- use maps but only if they show something of value; zoom into the area of interest; do not overcrowd the map so that it is difficult to read; include a one sentence caption explaining what the map shows. An example of a useful map: survey results overlaid on the IRI rainfall estimate
- the bulletin should include different sections: Summary, Weather/Ecology, Desert Locust situation, Forecast, Resources, Activities (current and upcoming)
- the Summary section should only be a few sentences long and should also publicize the survey and control efforts of the Locust Centre
- the Resources section should contain updated inventories of equipment every month, even if these inventories did not change (India and Pakistan should include inventories in the fortnightly bulletin for the second half of each month)
- the text in the bulletin should match the data in RAMSES
- the Bulletin should be distributed as a PDF file because it (a) retains the original format, (b) it is smaller, and (c) it is more difficult to change; use PDF Creator and Adobe Acrobat to make a PDF

RAMSESv4

The RAMSESv4 development team, its methodology and work done so far were presented and demonstrated.

The team consists of Chris Warner and Mehdi Ghaemian as programmers, Hichem Dridi as programmer for internationalization, and Nassor Al-Harthy and Ahmed Salem as beta testers.

The team is using the Agile Development method because:

- it is a rapid and flexible method for responding to change with quick delivery of simple but powerful software;
- it breaks tasks into small increments with minimal planning and requirements, encouraging solutions to evolve;
- it contains a central back log of items listed with priority status. The team only works on one item at a time. The whole process is traceable from start (concept) to finish (acceptance). It focuses everyone's effort on the accomplishment of one single task within a given time period. If priorities change, any task can be selected from the back log. Nothing else is started until the current task is complete. So this is not a fixed development path, but a fluid and dynamic one.
- it leads to customer satisfaction by rapid delivery of useful software

Participants suggested a number of functionalities for RAMSESv4 which is expected to be delivered by the end of this year to all countries.

<u>Desirable characteristics of RAMSESv4</u>

- platform independent
- open source and internationally compliant
- small, light weight application
- easy to install
- easy to update
- robust (an older app with history)
- easy to customize (plug-ins)
- can add specialist applications
- language support
- licensing (free)
- database support (Postgres/Postgis)

<u>Required functionality of RAMSESv4</u>

- add DL symbols in layer view
- appearance as default query type
- save query (for later display)
- click on a point on the map and a pop-up window should appear with all related information
- zoom to country (by clicking on country)
- change fill country of individual country
- automate eLocust2 data and raster data import/check/mgmt
- Internet 24/7 vs. dial-up access
- include a custom towns layer
- database - read/write abilities (with password)
- data summary and statistics, display as graphs and maps (see Graphs & Maps below)
- FAO Spray Monitor Form
- Google Earth into RAMSES (or KML export)
- auto import photos (based on date/time or coordinate matching)
- ability to geo-reference maps
- map-making module (i.e. to mask out unsuitable or sensitive habitat)
- case studies should be easier, and ability to make case studies

Graphs

- locust maturity, locust density, survey, control, area infested, area treated, pesticide used, vegetation density (?) by entire country or sub-region over time 1 and time 2

Maps

- survey, control locations by entire country or sub region over time 1 and time 2
- area surveyed, infested, area treated, number of bands, swarms by entire sub-region over time 1
- do above for time 2, subtract from time 1 to show increase, decrease, no change

Suggestions for a future eLocust3

Once funding becomes available, eLocust3 should be developed with improved functionality as follows:

- alert messaging
- rechargeable battery and vehicle power (for recharging, too)
- built-in GPS, camera, antenna
- USB connection

Conclusion

Similar to conclusions of previous workshops, the utility and usefulness of this annual event cannot be underestimated. The workshop is a forum for nationally designated Desert Locust Information Officers to exchange their experiences, difficulties, tips and solutions in using tools developed by FAO DLIS in their daily work. Despite cultural, nationality, religious, administrative, language and work ethic differences, these officers have the same terms of references and responsibilities. Consequently, they face the same problems and are therefore a source of valuable knowledge and experience that can be used to resolve problems that each face rather than depending solely on FAO. The encouragement and strengthening of this horizontal exchange of experience is one of the primary themes and objectives of the workshop.

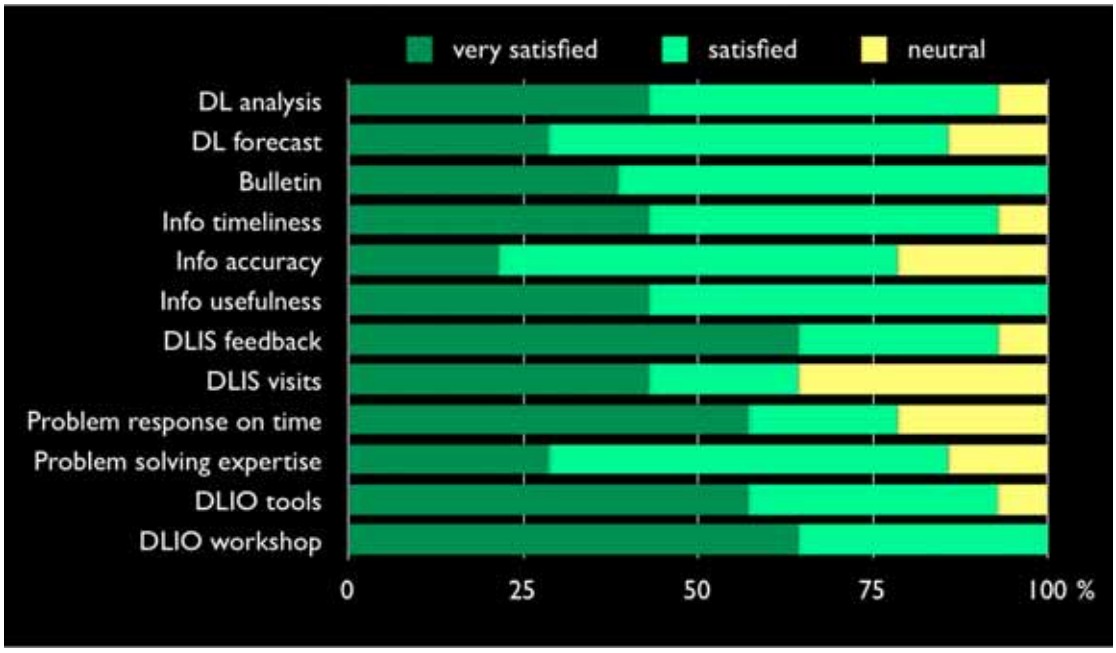
It is becoming increasing apparent that the national Desert Locust information officers are more and more proficient in the use of the tools and new technologies that they use in their daily work. Previously, this was not the case and a large portion of earlier workshops was devoted to on-the-job training and problem solving. Now, however, the new challenges are (a) to use GIS technology more for analysis and forecasting and (b) to strengthen the connection and collaboration between national Desert Locust information officers and their directors, the head of the national locust centre. It is well known that this link is weak and substantial efforts are needed to strengthen it from both ends. This will be the challenge in the coming years.

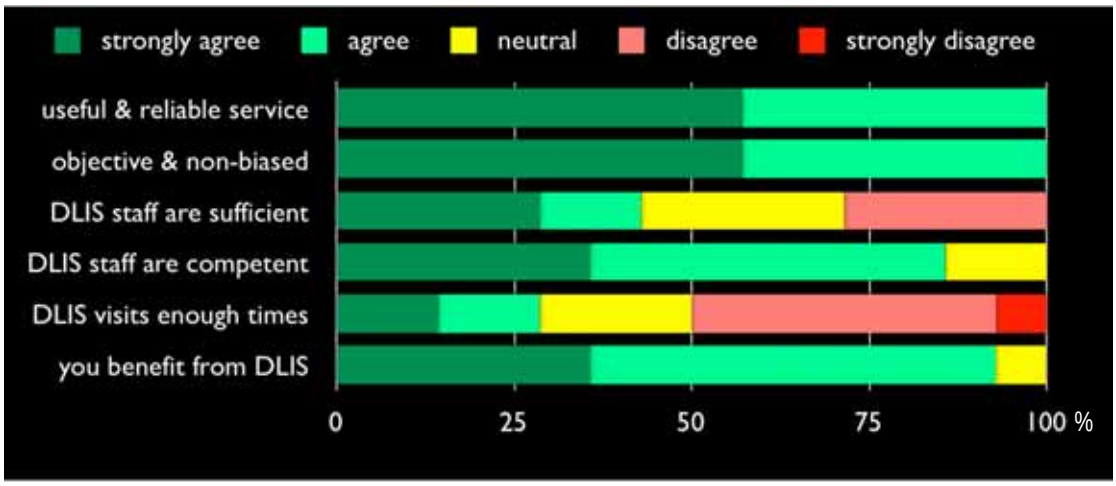
Therefore, the workshop should be organized again in the spring of 2013. It will be an ideal opportunity to review the functionality and operationality of RAMSESv4 since participants will have had some three months of first hand experience in using the new version. Inputs from the participants will be used to improve and update RAMSESv4. It may also be worthwhile to invite both locust information officers and their directors to the workshop in 2013 as one means of strengthening the link between the two individuals and introducing RAMSESv4.

Annex 1. Questionnaire results

The questionnaire was sent to 24 DLIOs of which 16 responded. A summary of the responses and comments is presented in this Annex.

(a) DLIS – how satisfied are you with the following DLIS services and do you agree with the following statements (50% were Very Satisfied with DLIS, 50% were Satisfied)

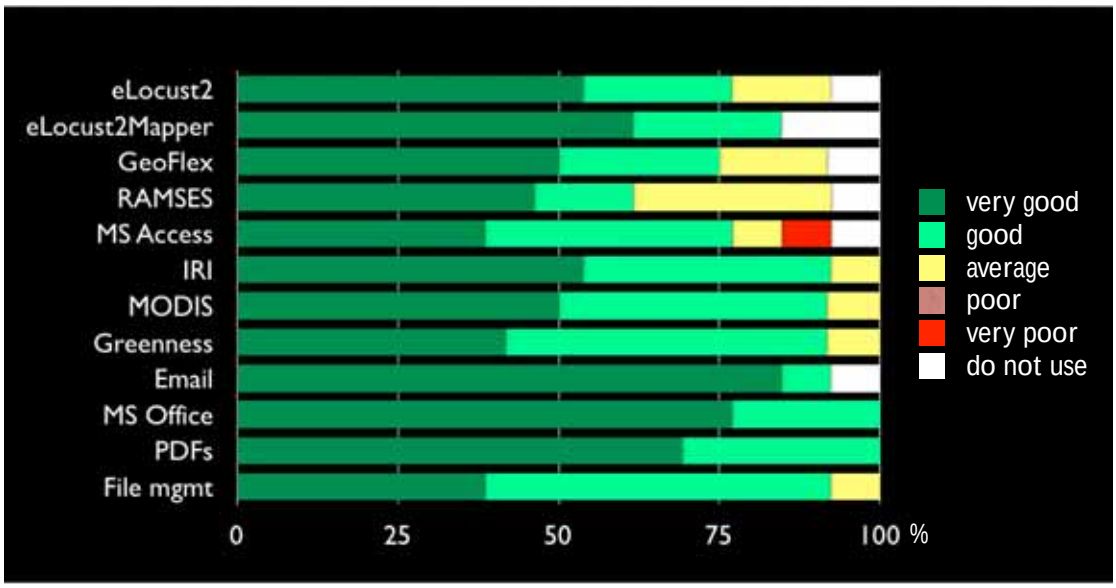




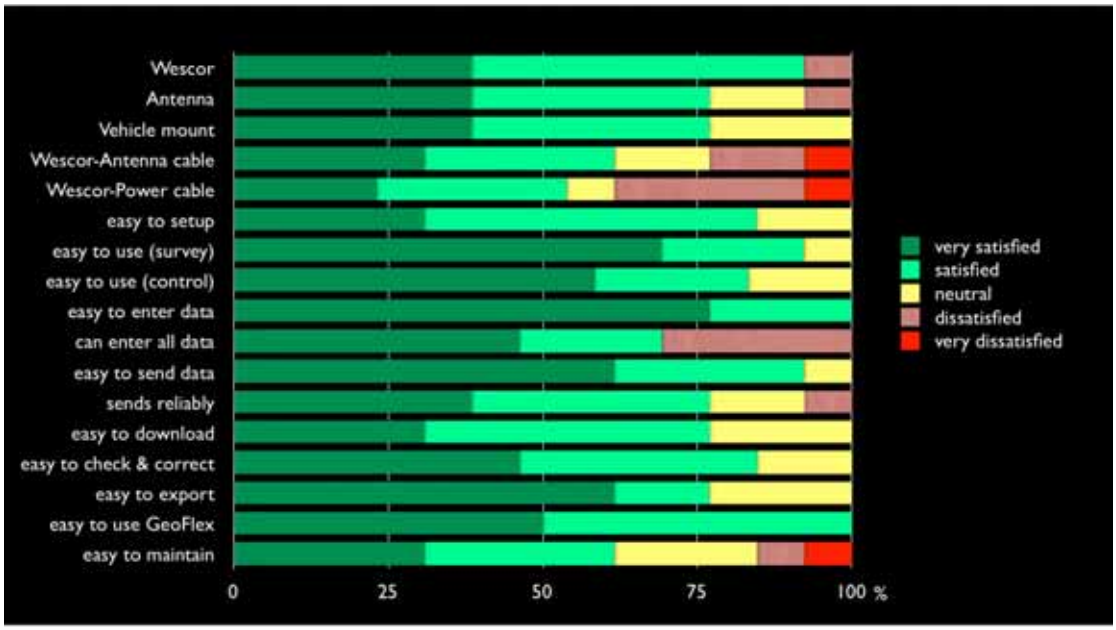
Comments

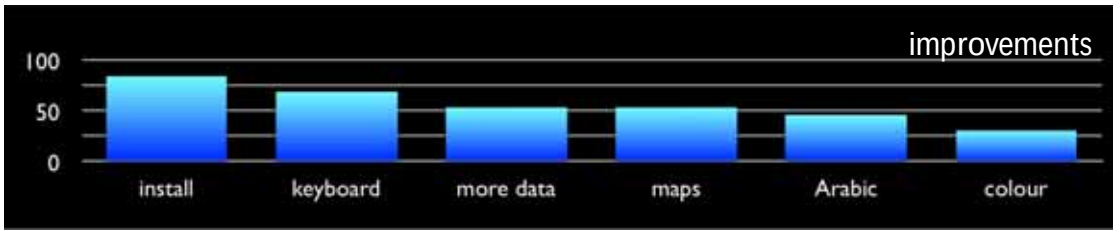
- Keep providing constructive comments on bulletins for improvement.
- DLIS staff are not sufficient - need an assistant for the Senior Locust Forecasting Officer.
- DLIS staff visit my country only one time in three years - it is not enough: should be at least once in two years.
- Improvement of DLIS depends mainly on the strong link that should exist with national PPDs. Many countries replace their qualified staff who are engaged in locust information services and new staff face difficulties. DLIS should think of organizing training to these staff to improve their knowledge and expertise.
- FAO to designate a permanent qualified person as a focal point in every locust affected country for locust information.

(b) DLIO tools – how confident are you in using the following tools



(c) eLocust2

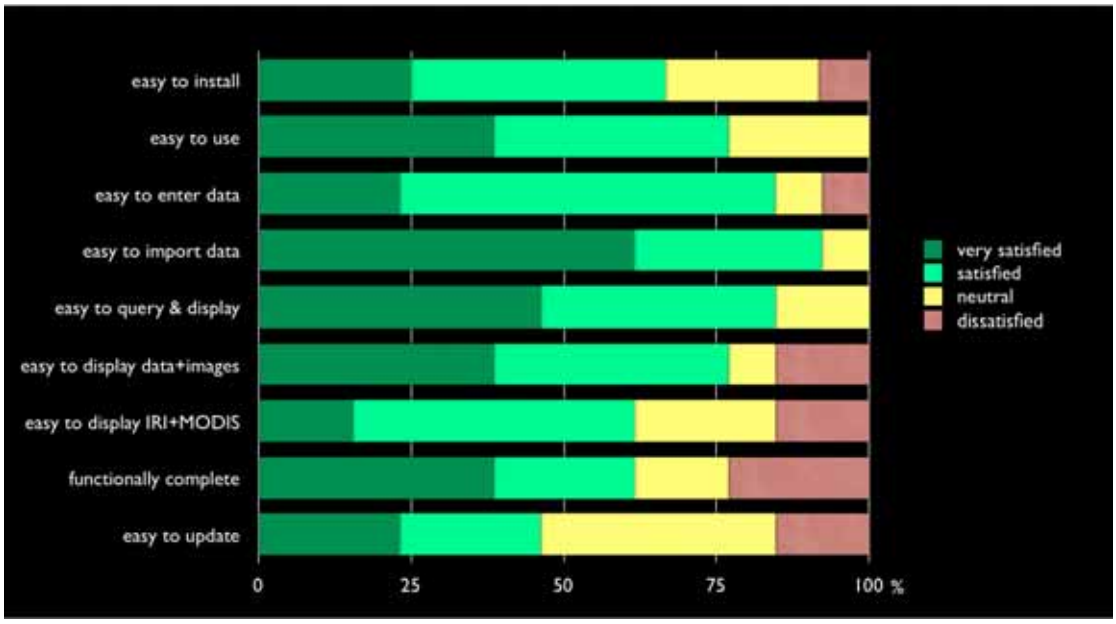


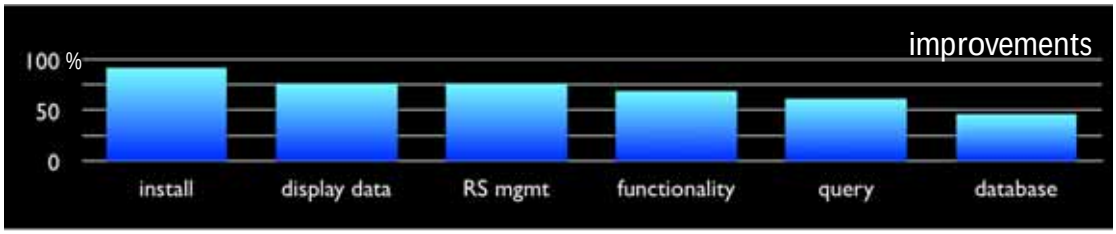


Comments

- do not depend on vehicle battery - use rechargeable batteries (so that eLocust2 could be used out of the vehicle)
- use less cables (antenna inside the Wescor, or use wireless)
- USB port instead of serial port
- additional GPS functionality (compass, GoTo)
- option to enter location names
- capability to send alert messages
- field officers should learn how to update and install eLocust2 software
- eLocust2 does not work in the field so must record data on Survey Form

(d) RAMSES

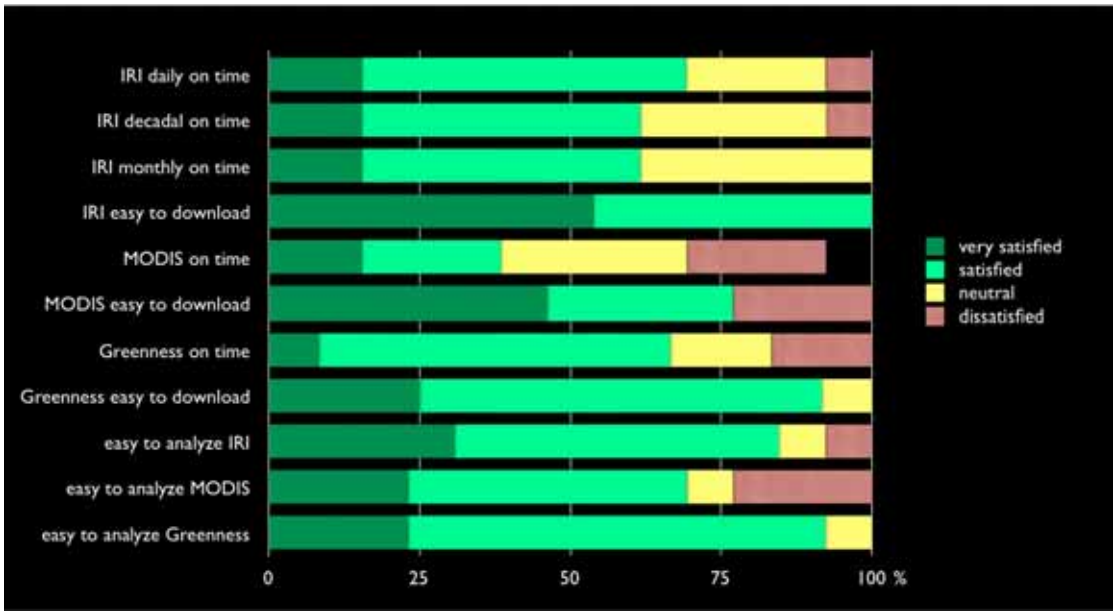


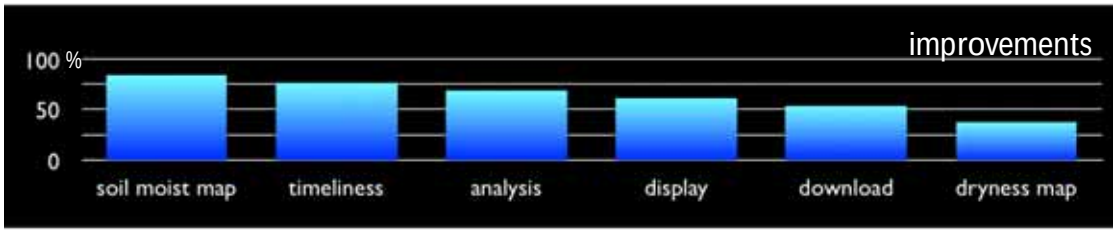


Comments

- should work on all versions of windows, without ArcView, simple to use, and easy to reinstall
- include spatial, proximity and statistical analysis tools
- cannot view rainfall and MODIS imagery together at the same time
- easy to update national and sub-national (administrative region) boundaries
- provide a map with location names (Google Earth map)
- need more training

(e) Remote sensing





Comments

- vegetation density should also be displayed
- temporal resolution image is highly recommended
- habitat maps that indicate preferable species for Desert Locust and crop production zones
- MODIS imagery and Greenness Maps to be available on time
- higher resolution imagery for vegetation cover (30m)