Who is Using What, When and Why?

Peter Moore & CEOS Wildfire Pilot colleagues

NB - Peter NOT staff at FAO but consulting for FAO

Run-Sheet

- Fire Size
- Fire Recording and Reporting
- User Realities
- Implementation
- The 'Competition'
- CEOS Wildfire Pilot – a contribution

The Fire Size Needs

Major proportion of fires are 'small' - Fires on Victorian public land 2002/3 fire season

Size Class (ha)	Number	Ave Size (ha)	Total Area (ha)	%Number	%Area
0-0.1	312	0.05	16	39	0.0
0.1-5	370	1.4	525	46	0.0
5-40	85	15	1,295	11	0.1
				96	
40-200	25	98	2,438	3	0.2
200-400	6	293	1,760	1	0.1
400-4000	7	189,715	1,328,008	1	99.5

Fire Recording and Reporting

- NO remote sensing data tells us
  - "Why?" – needed as people are ~90 percent of ignitions, or
  - "How?" – needed to identify alternatives and areas of focus to reduce risks
  - FIRST WE NEED TO KNOW THEY OCCURRED
- Recording and Reporting is critical to review and analysis of fires for framing the options to reduce risk
  - ALL fires should be the goal
  - Needed to work through the steps of Data – transformation into information – identifying options – decision – implementation
- Much increased interest in Traditional Knowledge, Indigenous Communities and Local People
  - Small, frequent, low intensity – monitoring?

User Reality

- People cause fires
  - ~90% of fires globally through a combination of poor practice, limited access to alternative approaches to fire, accidents, weak understanding of fire risk, machinery, negligence and carelessness

- Example of needs –
  - Pakistan – Balochistan Fire - ~5000 hectares, dissected landscape
  - Timor Leste - Analysis done – LandSat etc very small country

- In both cases there is NO agency capacity or 'system' in which to 'land' the data products

- Current uses – some ideas and impressions
  - Most productive use is as a starting point for discussions and are the 'ready made' products such as the GWIS Country Profiles
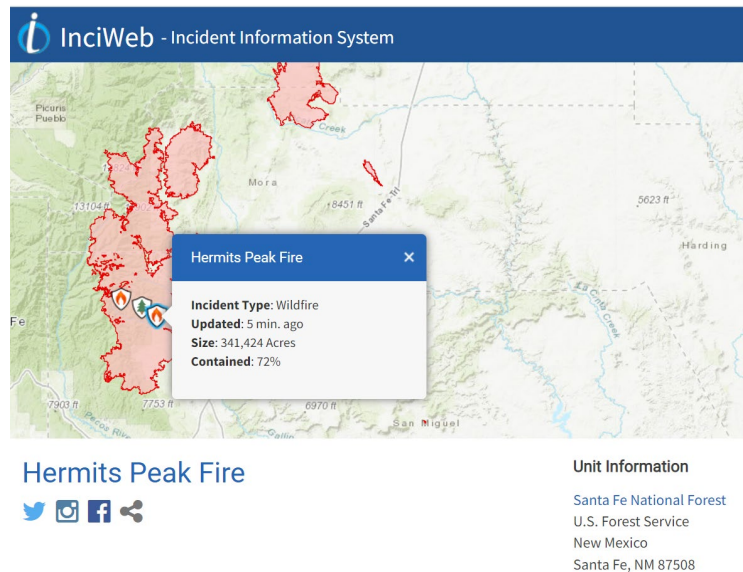
Users are widely variable

Implementation

- International space agencies and partners create and promote monitoring tools.

- When national teams seek to implement the new tools and procedures, they encounter problems ranging from a lack of personnel who can use the tools and apply the methodology to a shortage of hardware and software, which causes delays in applying them and building understanding for refinements and improvement.

- Coordinating the many efforts of cooperating agencies at the government level is often difficult. New technologies, data and monitoring capacity are welcome but the public sector struggles to keep up with new tools, methods and processes.
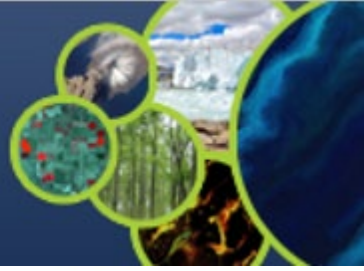
The competition

Research promises revolutionary technology for preventing forest fires – a flock of drones can chase aerial patrolling off the map

16.6.2022 / ARTIKKELI INNOVATIONS

- Private sector products
    - Companies creating and pushing products
    - Planet data – 'Apps'
    - Commercial high resolution satellite data for fire work.
- Key Question – do any of these add value?

InciWeb - Incident Information System

Hermits Peak Fire

Incident Type: Wildfire
Updated: 5 min. ago
Size: 341,424 Acres
Contained: 72%

Hermits Peak Fire

Unit Information

Santa Fe National Forest
U.S. Forest Service
New Mexico
Santa Fe, NM 87508

FOTOKITE

NON STOP SITUATIONEEL OVERZICHT TIJDENS EEN INCIDENT

VTN

Objective 2 – Key Elements

(Objective 2) "Conduct a detailed analysis of global stakeholders
and end-users of near-real-time active-fire EO data"

- Seeking to ensure meaningful input on either use of EO data and products and setting out needs from the fire management perspective

- Implement engagement to ensure that groups not regularly involved can contribute

- The data and information collected will likely revolve around a core set of questions to source input

Objective 2 – 2021-2022
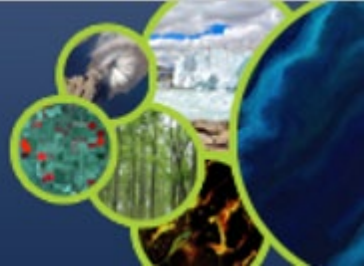
(Objective 2) "Conduct a detailed analysis of global stakeholders and end-users of near-real-time active-fire EO data"

- Outreach to regional networks and partners to identify stakeholders and end-user communities. The potential sources and groups to be refined will include:
  - The Expert Group on Forest Fires (EGFF) convened by the European Commission
  - The Association of South East Asian Nations (ASEAN)
  - FAO country level fire management projects;
- End-user engagement initiated to identify:
  - Agency responsibilities, priorities and perceive challenges in the future;
  - User sophistication level;
  - Current level of use and use cases; and
  - Existing needs that have been identified

Summary

- Potential users have full-time commitments as we all do.
  - They may not, usually do not, have the time to learn how to use the tools and apply the methodology (assuming no shortage of hardware and software)
- The many data sets, products and methods are confusing, including the competing products in a 'market place'
  - "protocol formulation and writing" for comparability and standardization of data handling and products as noted by Luis and colleagues, seems very important!
- Not a new idea - need to consult with users and potential users, to identify (CEOS Wildfire Pilot will contribute)
  - Questions from the field – what do they need?
  - Questions to the field – what do you use? How do you use it?
  - Next step - Some form of 'interface' or 'interaction' or 'engagement'?