2017 Asia Forest Fire Management Training

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Ground Suppression Techniques(GST)

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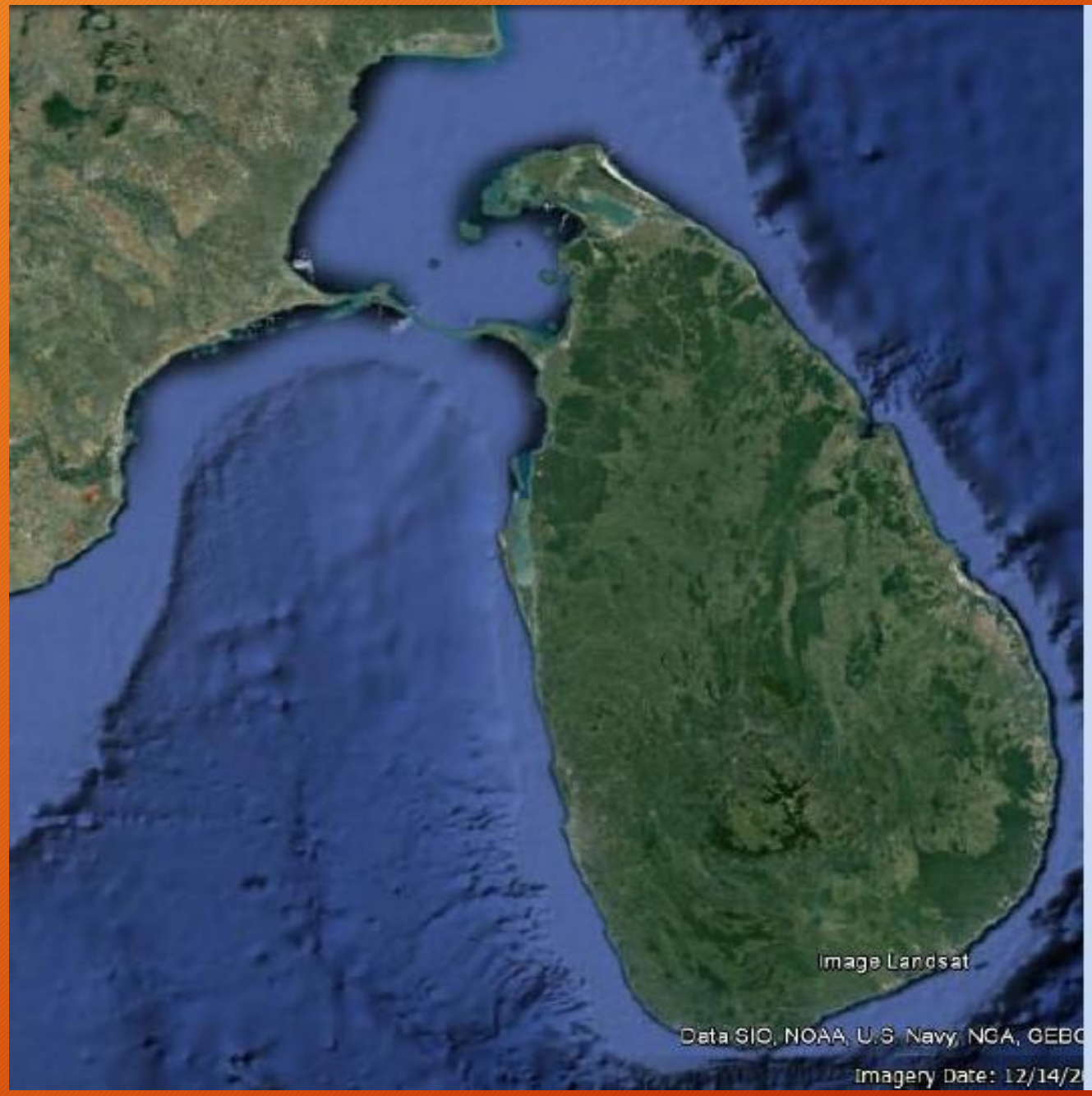

- SL is an Island country in the Indian ocean with a land area of 65,510 km^2
- Located northerly of the equator, but very close
- Hence experience a tropical climate
- Contains an undulate peripheral landscape with the steep terrain central highlands
- Bimodal rainfall pattern exists with two dry spells
- Teak, Pine, Eucalyptus plantations and IAS

Forest Fire Status in Sri Lanka - Introduction

Forest fires can be ignited due to a variety of reasons.

Causes of forest fires - Deliberate, Carelessness and Accidental.

No natural forest fires exit in Sri Lanka, all forest fires are manmade.

Deliberate fires are made mainly by cattle herdsman, slash and burn cultivation practiced farmers and hunters. Cattle owners burn grass during the dry season to obtain tender grass from the subsequent rainy season. Hunters burn forest grass lands to trap wild animals or subsequent shooting of them. Slash and burn farmers set fires to forest lands and grass lands therein after felling trees bushes for farming. Some generate forest fires for protection and for gain easy access to their interested areas.

Carelessness is caused by smokers who throw cigarette butts in to dry grasslands, road maintenance workers and villagers burn debris carelessly near the forest.

Accidental forest fires are caused by railway locomotives

In addition some people set fires for fun.

History of Forest Fires

- 2016 - 2036 ha were burnt due to forest fires
- 2017 - 463 ha have burnt to date

Year	No of Forest Fires
2002	88
2003	47
2004	44
2005	82
2006	58
2007	15
2008	15
2009	111
2010	63
2011	22

Pre Suppression

- **Organizing Forest Fire Suppression Units -84**
  - There are 84 Forest Range Offices, under 23 Forest Divisions or Districts, under 5 Regional or Provincial Forest Offices.
  - Each Forest Range in the country is in operation as FFSUs. Range Forest Officer (RFO) is the in charge of FFSU, deputed by his Additional RFO, supported by Beat Forest Officers (BFO), Extension Officers (EO) and Forest Field Assistants (FFA), Forest Watchers and Forest Laborers
- **Preparing fire crew and information gathering**
  - During the on set of dry spells the fire crews are informed accordingly to be in vigilant of the occurrences of forest fires. Informants and mode of information sharing, CBOs
  - They are informed to be in good rapport with the other local institutions such as local government agents, councils, government institutions, police and security forces, DistCC, DivCC meetings, Disaster Management Department specially,
- **Preparing equipment**
  - Jeeps, Pickups, Tractors, Water Pumps, Hoses, are available in different levels,fire hand tools, knapsacks tanks, some times helicopters
- **Site survey**
  - Referring to maps of dry areas, accessibility levels, water availability, village frontiers, fire belts, conducted awareness programs on forest fire consequences, legal requirements

Fire Suppression

❖ **Legal Applications** Forest Ordinance - Section 8, 20 National Wilderness Area Protection Act - Section 2.1, 4

Fauna and Flora protection Ordinance - Section 6,7 (Fines and jail terms)

Principles for extinguishing fire fuel load reduction is a challenge there due to high organic matter production in tropical forests in Sri Lanka favored by the fine climate and weather. Difficult to deal with bad attitudes of people

Size up (evaluation of situation) use of previous experience, informants, maps depicting grasslands and water holes, public support, security forces availability, equipment and vehicles owners , agitation of the Department of Disaster Management, Department of Meteorology their weather forecast information

Suppression methods reaching the site with equipment and man power, thoughts of wind direction, thoughts on new fire belts formation, fuel load reduction included.

Fire belts, Awareness Programs, Good rapot maintenance with local institutions and people, Forest Types especially grasslands and the climatic zones

Fire Suppression

1. Principle for extinguishing fire
Whether and Climate, Beyond Human Control, Physical Factors, Fuel, whether and topography, Fuel- Plant material
Organic Matters, whether- Wind, Humidity, Temperature
Topography- Sloppy Forest areas

2. Size up (Evaluation of situation).

According to Time and topography accebility, Equipment, Wind speed, Available manpower, Fuel load
3. Suppression methods
Access mode and fire tools

Mopping Up

Remaining fire remnants are suppressed by fire extinguishing continuous monitoring

Use of hand tools for this purpose is most economical and the most viable.

Among those beating up with fire flaps are mostly used along with the leafy tree branches

Burning stumps or logs have to be suppressed where necessary

Opening fire belts of 30 width is essential, nowadays use caterpillars flat grounds

Hand Tools

- Fire racks, fire bush cutter knives, spades, Mamoties, powered grass cutters, knapsack sprayers.
- Fire flaps
- Leafy branches of remaining trees

Thank You