



INTERNATIONAL
Boreal Forest
RESEARCH ASSOCIATION



IBFRA 2021 conference

Forest Fires in the Boreal Zone of Russia

Andrey Eritsov
Aerial Forest Fire Center
“Avialesookhrana”

Roman Kotelnikov
Center of Forest Pyrology

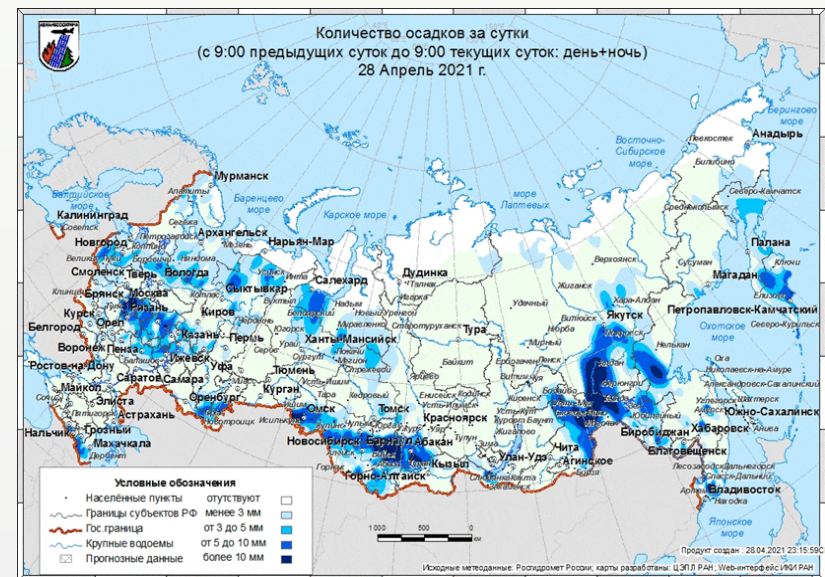


Artificial precipitation and use of explosive on firefighting

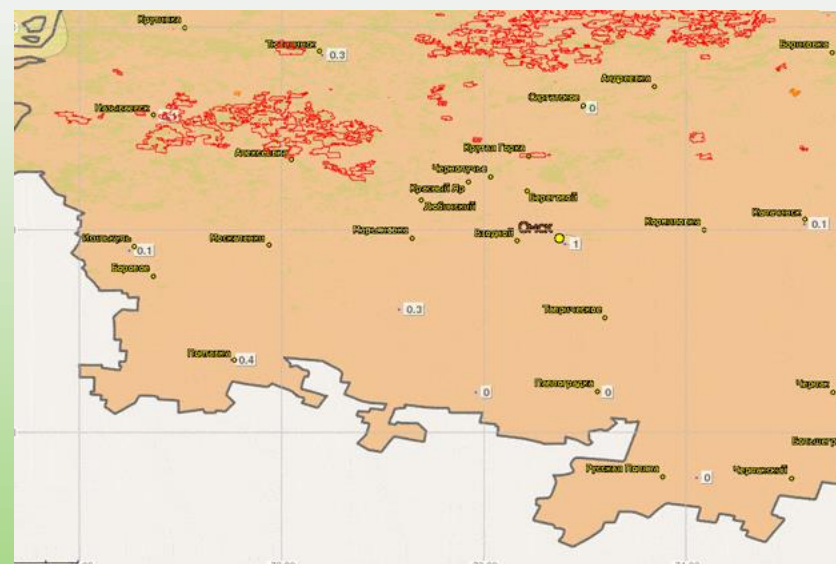
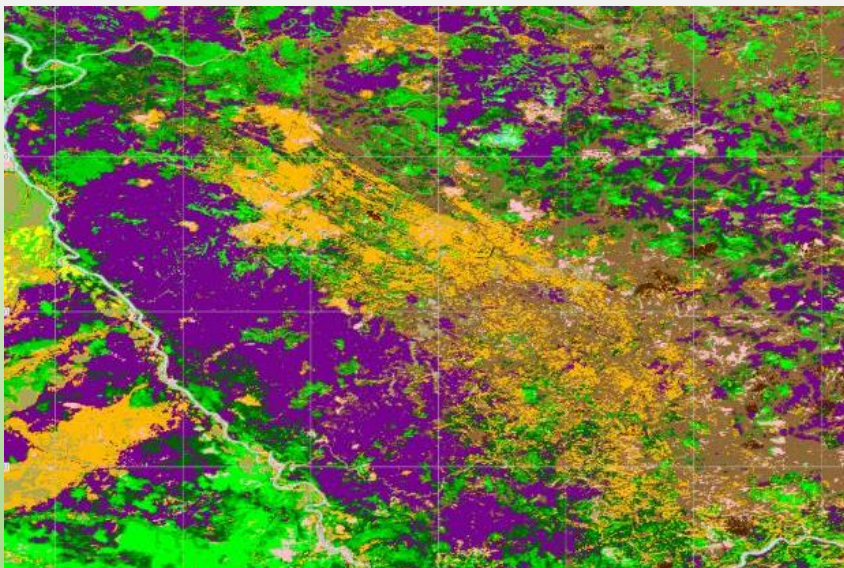
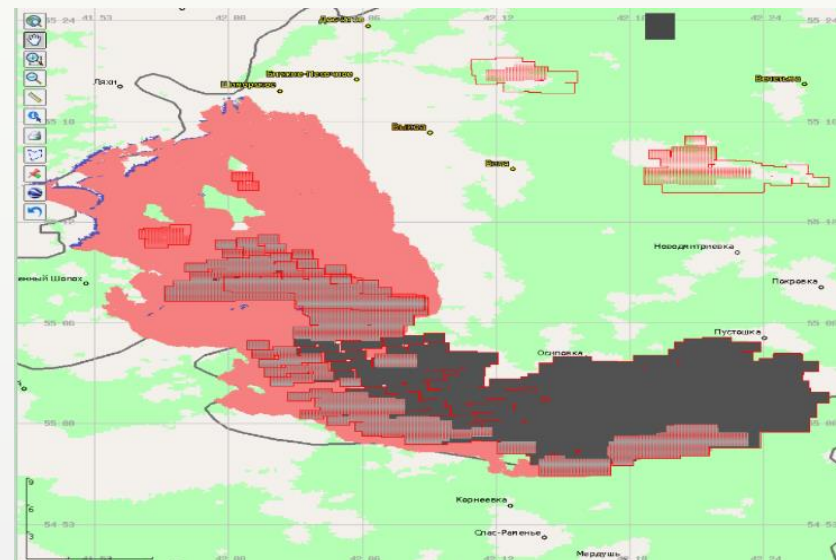
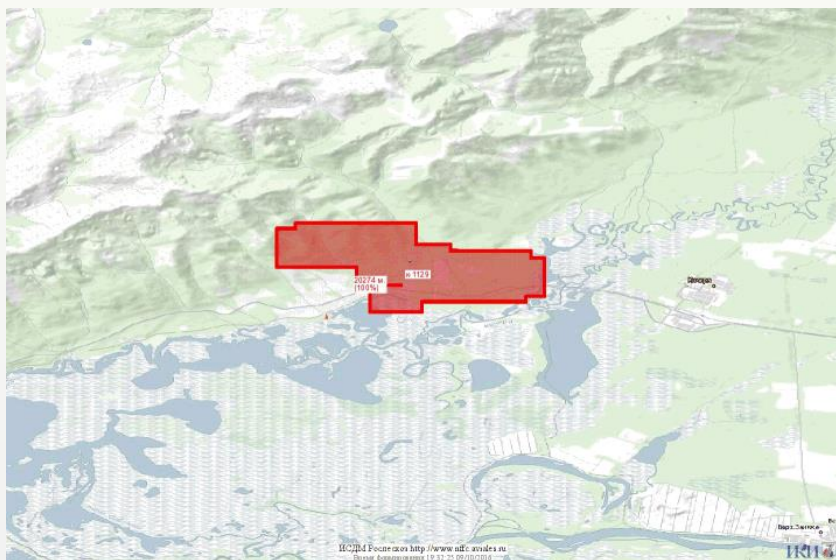




Information System of Distance Monitoring



Information system of Distance Monitoring



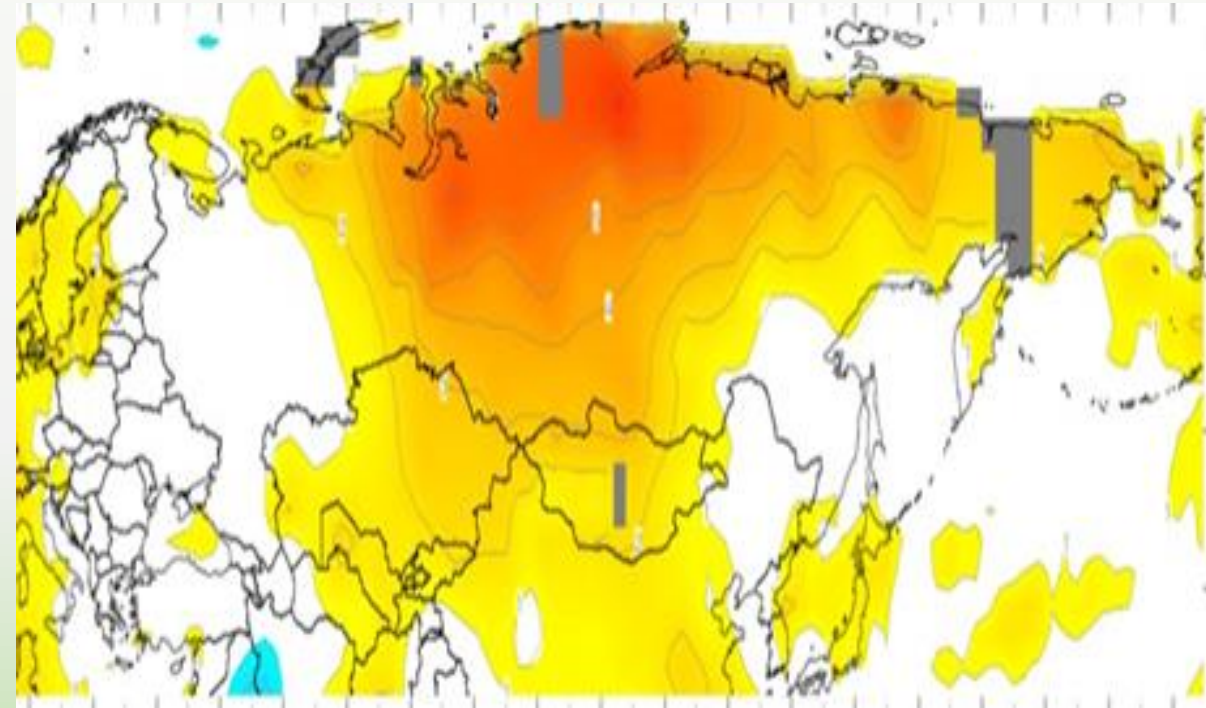
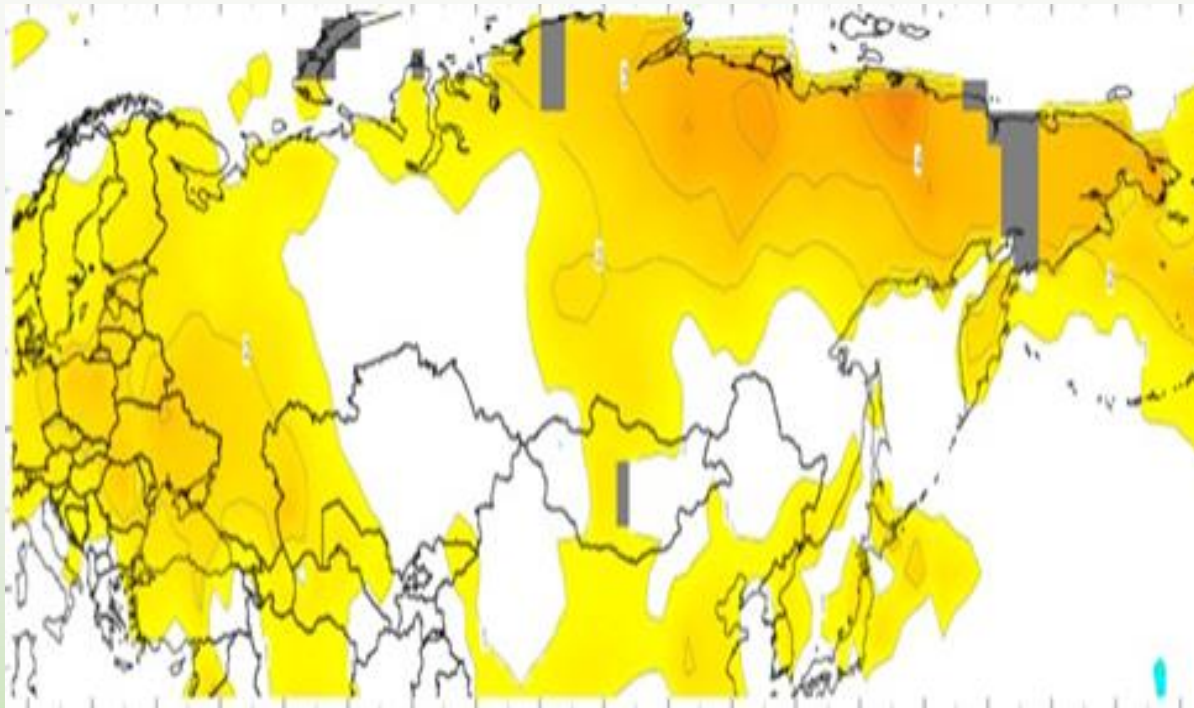


Forest Fire Management in Russia





Temperature anomalies in Boreal Zone



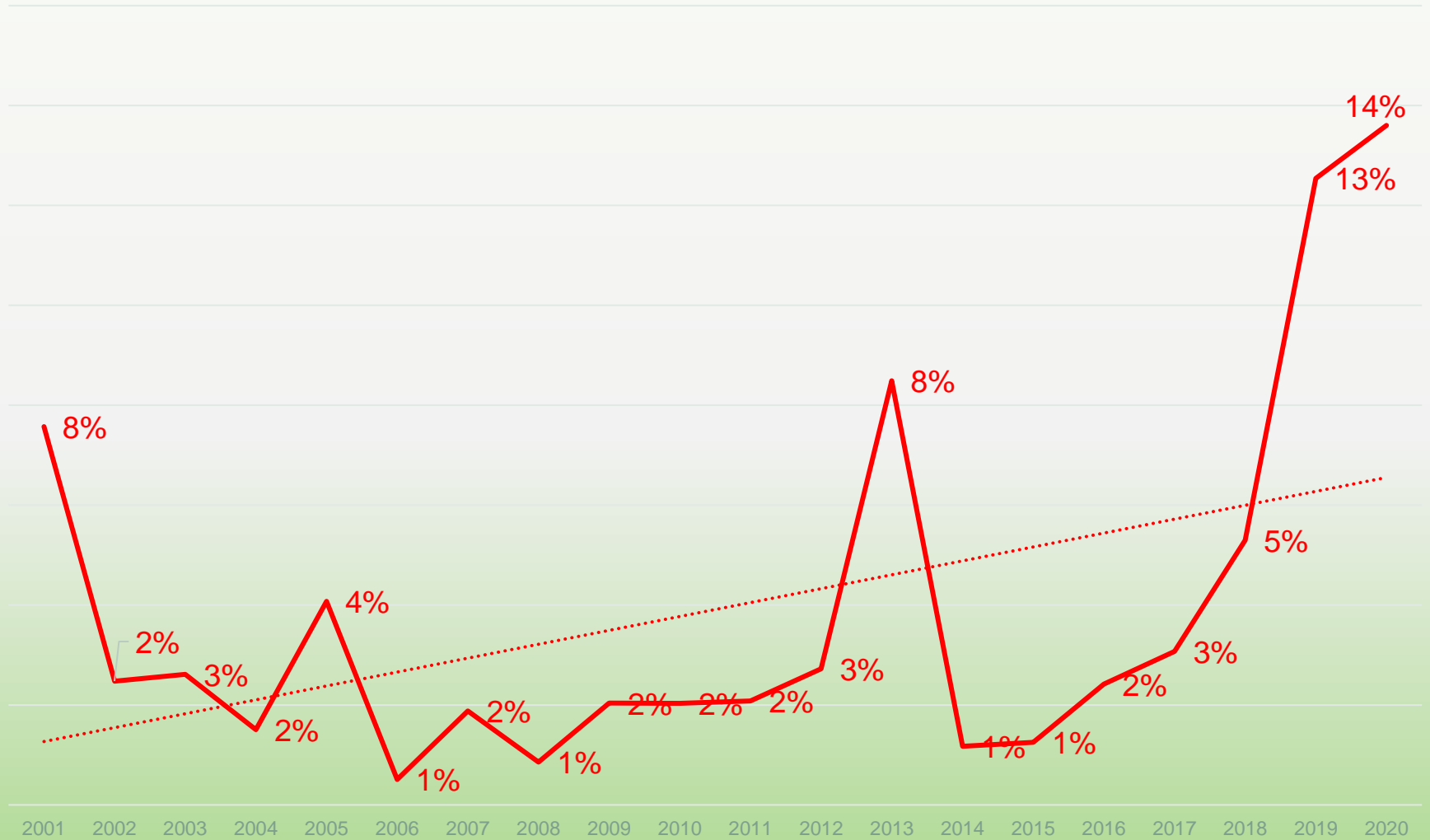
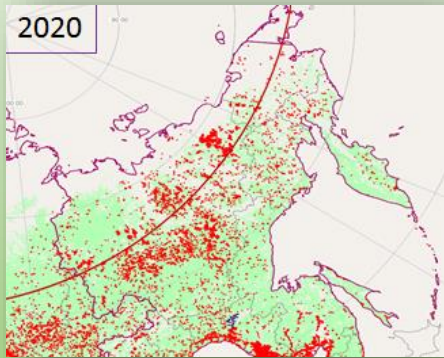
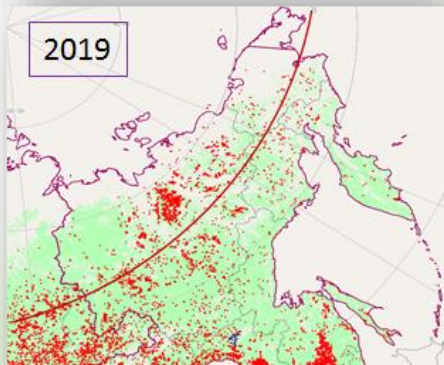
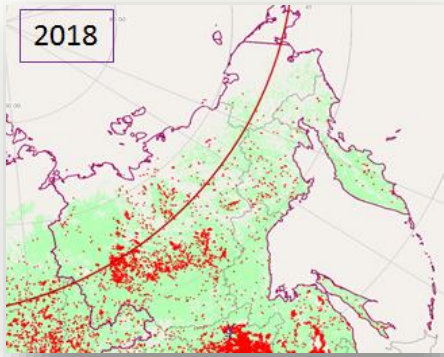
April – June 2019

April-June 2020

Temperature anomalies to compare to average 30 years data

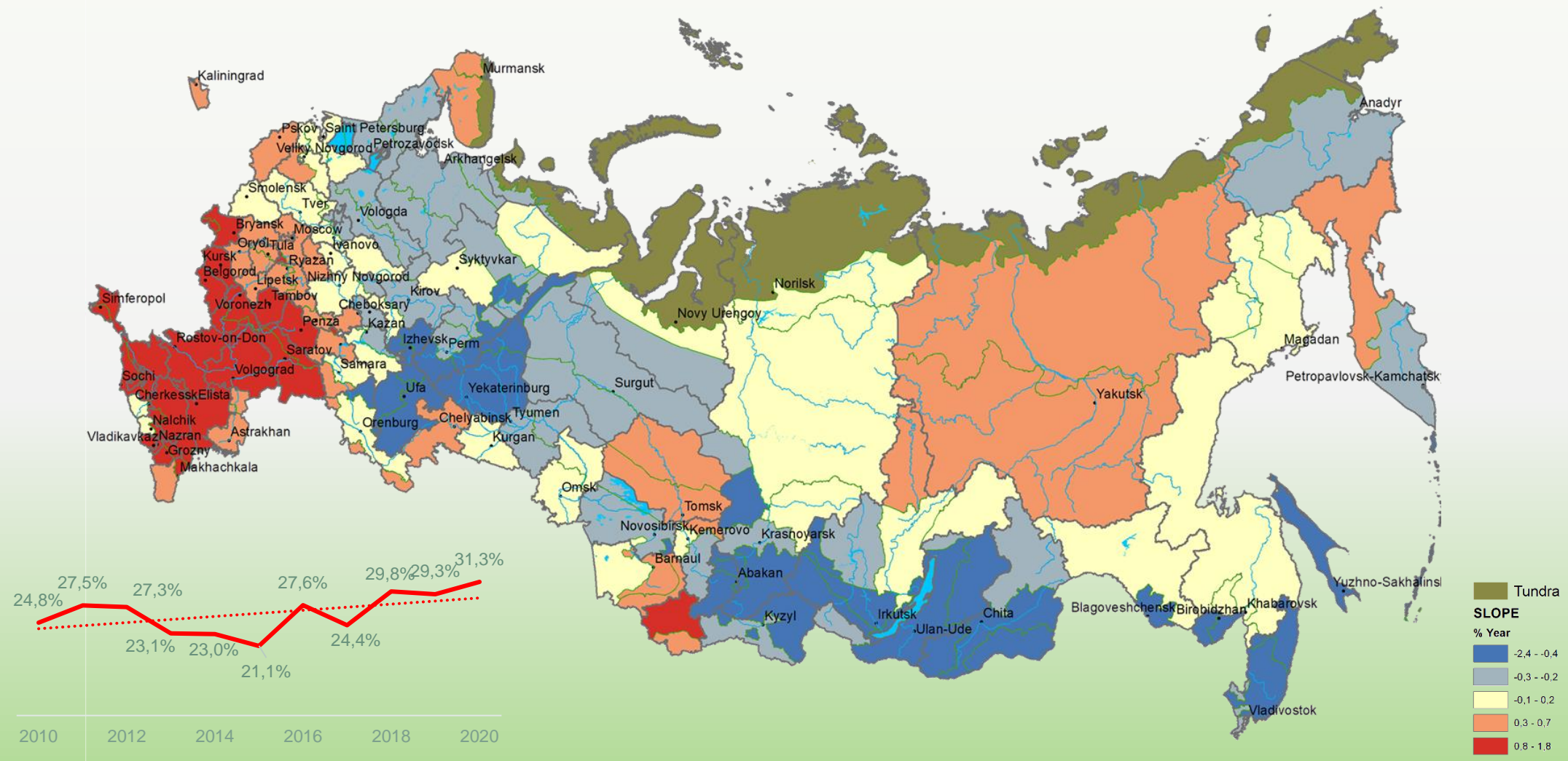


Trend of acting fires in Northern territories



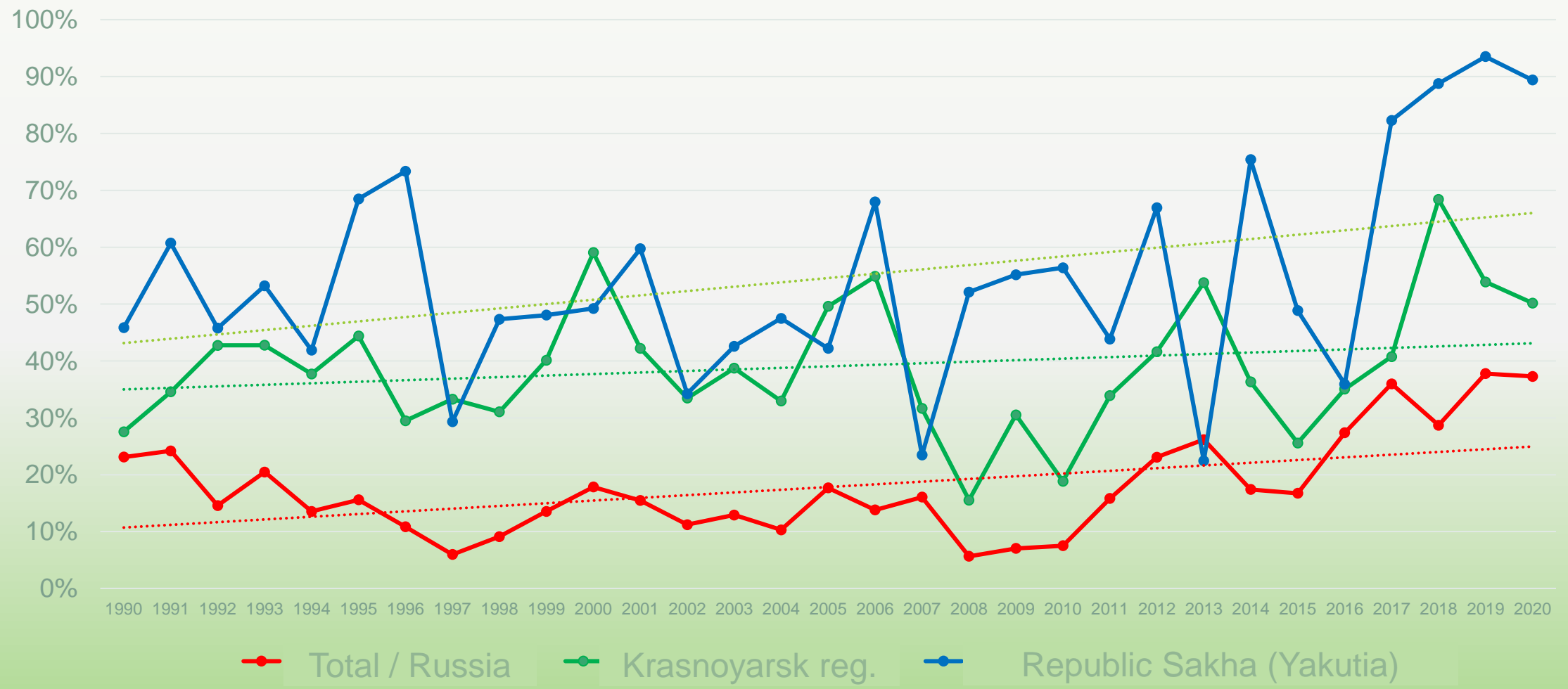


Tension of a fire season





Forest Fires caused by lightning





Map of population density and prevailing winds in June (fragment)

↓ Prevailing wind

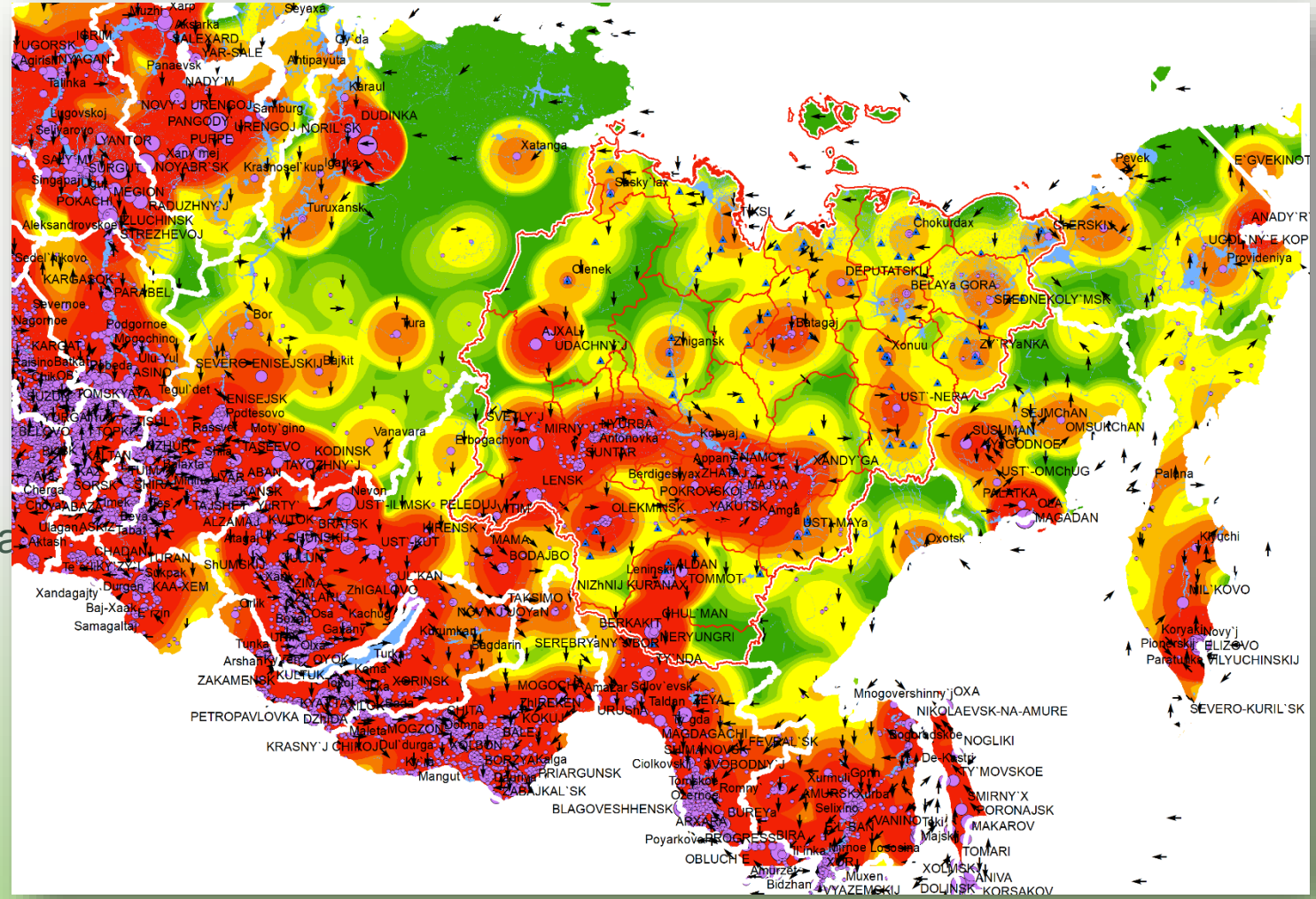
Settlements

Population size, thousand ppl

- ≤2
- (2;7]
- (7;20]
- (20;60]
- >60

▲ Spots of indigenous people residence

Population density, ppl / 1000 ha





Outcomes / Recommendations

- Fire danger rating by Nesterov index is increasing in northern areas more than the average annual temperature
- The share of forest fires among landscape fires is increasing
- Number and area burned are increasing in the northern territories
- The share of forest fires in summer period destructed forest significantly increased
- The share of forest fires caused by lightning increased, although this process is cyclical and a slight decline is predicted
- Issues related to the spread of smoke require special attention, including in the context of changing prevailing winds
- Decided to develop aerial forest fire centers in Northern territories
- Essential funding for acquisitions of fire fighting equipment and aerial means provided for fire management in Northern territories
- Recommended to develop interagency and interregional cooperation on fire management



INTERNATIONAL
Boreal Forest
RESEARCH ASSOCIATION

Thank you for attention!
Спасибо!

Russia



Aerial Forest Fire Center
“Avialesookhrana”

<https://aviales.ru/>



The Branch of the Federal Budgetary
Organization “All-Russian Research
Institute of Silviculture and
Mechanization of Forestry”

“Center of Forest Pyrology”

<https://firescience.ru/> 12