



Environmental change and resilience planning in the Russian Arctic

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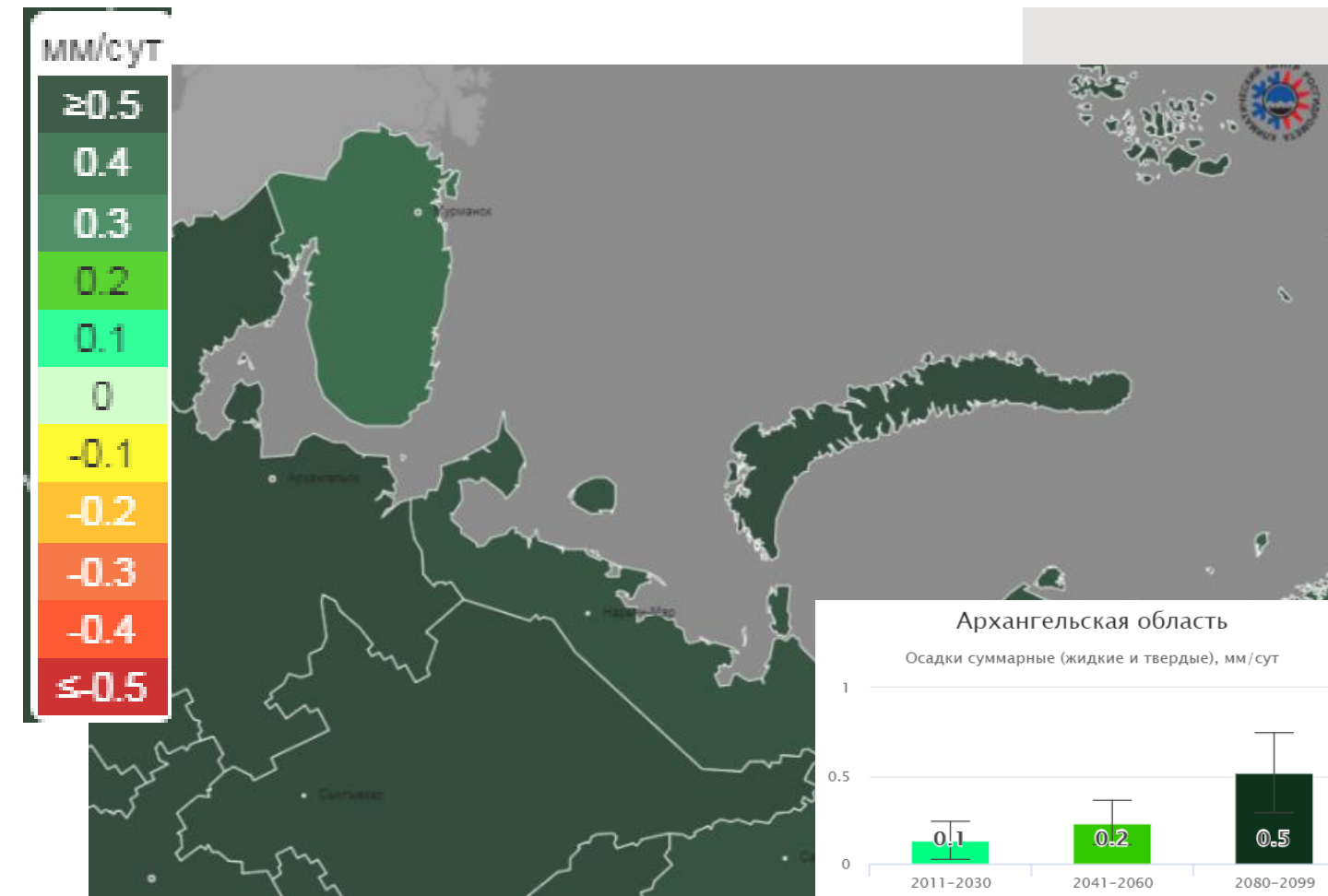
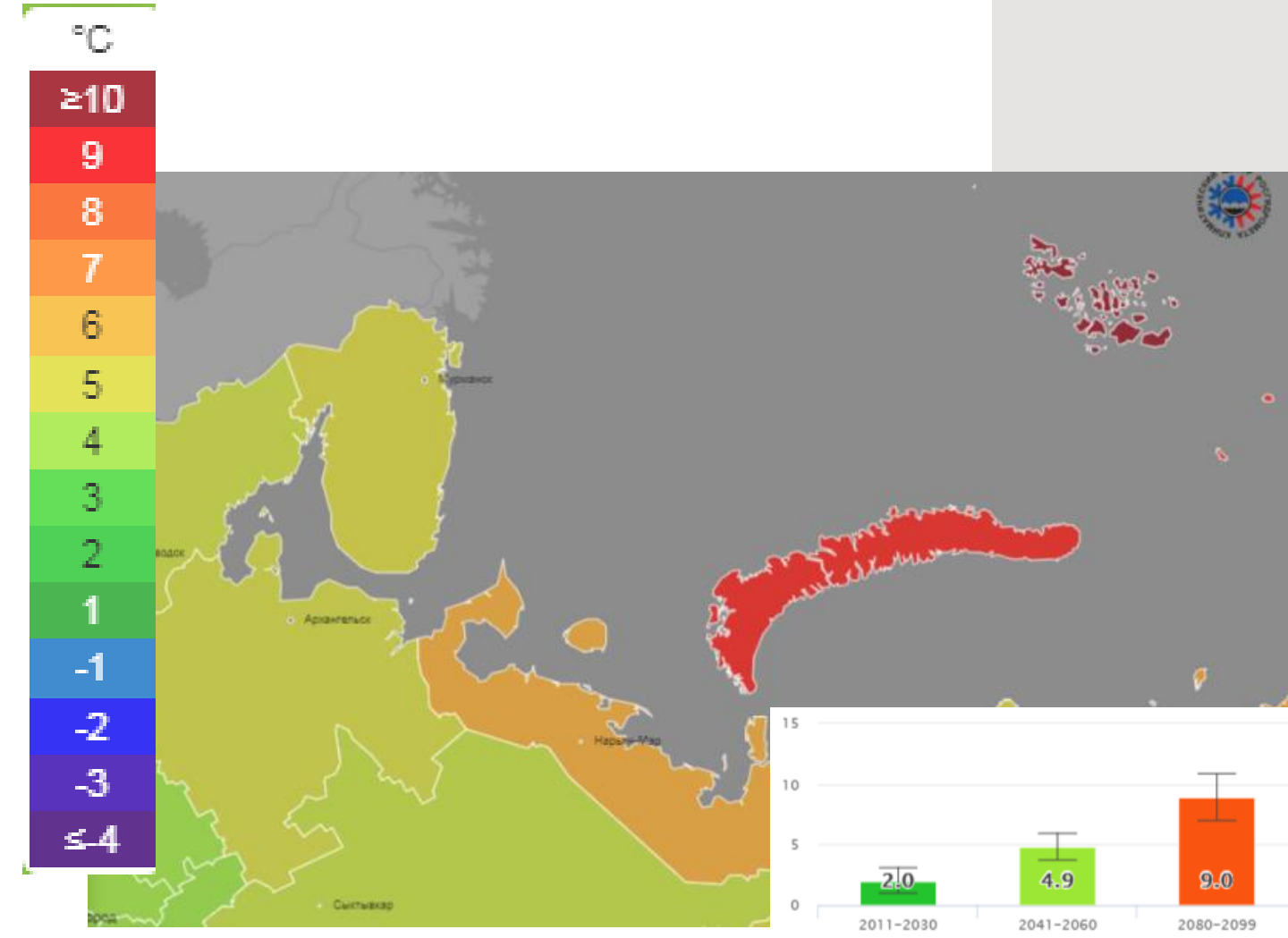
UArctic Congress 2021

Russian Arctic: Arctic zone



Climate change consequences

- Increasing number of storms
- Increasing average annual and seasonal temperature variations
- Increase in the frost-free period and increase in the amount of precipitation (winter)
- Changing conditions for navigation and mining
- Heat and cold waves
- Changing animal migration patterns (northward movement)
- Human health risks
- Permafrost retreat
- Infectious and parasitic disease dissemination



Rosgidromet prognosis on seasonal temperature and precipitation for XXI century

Climate change consequences

- Low transport accessibility
- Worsening conditions of highways
- Harder winter logging
- Worsening snowmobile movement
- Impossibility to store food without freezers
- Floods
- Wildfires
- Coastal erosion processes
- Elks getting stuck in deep snow in winter to become easy prey
- Loss of bees due to increased dampness in the thaw
- Delayed movement of reindeer herds into the forest zone from the tundra, changing slaughtering period
- Changing shedding period
- Loss of trees



National legislation

Climate Doctrine (2009)

National Plan of adaptation to the climate change
until 2023

Challenges: regional level



- Limited financial resources
- Lack of legal documents and proceedings
- Lack of coordination between state organisations
- Climate change skepticism
- Best practices in big cities (climate change analysis, scenarios / climate modelling, environmental policy until 2030: climate strategy; adaptation measures; risks prevention system; structural actions)



Local communities



- Subject to a limited tax base
- Limited authorities and legal power
- Climate change adaptation not mentioned in the Development Strategies
- No separate documents on climate change adaptation but emergency response plans
- Local knowledge



Current approaches

- Vertical: assistance on the regional and national levels due to limited local resources
- Reactive vs. proactive: access to resources
- Structural: prohibited building construction in the hazard-prone zones; dike dams, etc.

Conclusions



- Need for the development of the strategies, plans and planning tools
- Need for collaborative approaches and actions
- Need for tailor-made educational programmes
- Knowledge exchange and transfer



Thank you for attention!

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