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Present and Future Effectiveness of Protected Areas in Russian Arctic



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WWF-Russia



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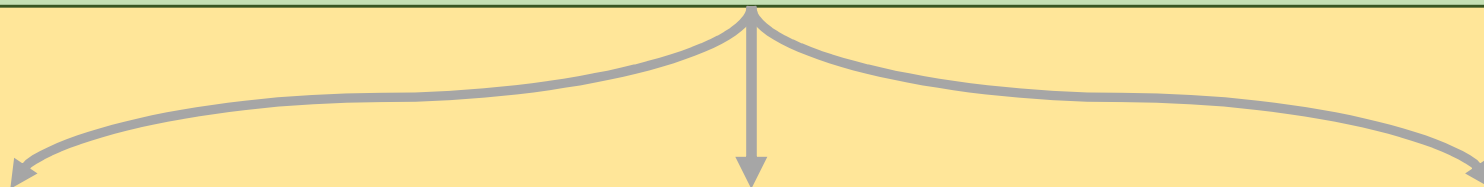
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Project

International Climate Initiative (IKI)

Conservation of Biodiversity in the Northern Regions of Russia to achieve
CBD Goals through Extension and Strengthening of a Protected Areas
Network adapted to Climate Change

Erhalt arktischer Biodiversität durch den Ausbau eines an den
Klimawandel angepassten Schutzgebietsnetzes in Russland zur Erreichung
der CBD-Ziele



Support of existing PAs to increase their effectiveness
and adopt to expected climate and development changes

Assessment of current conservation importance & effectiveness
and their prognosis for expected future conditions



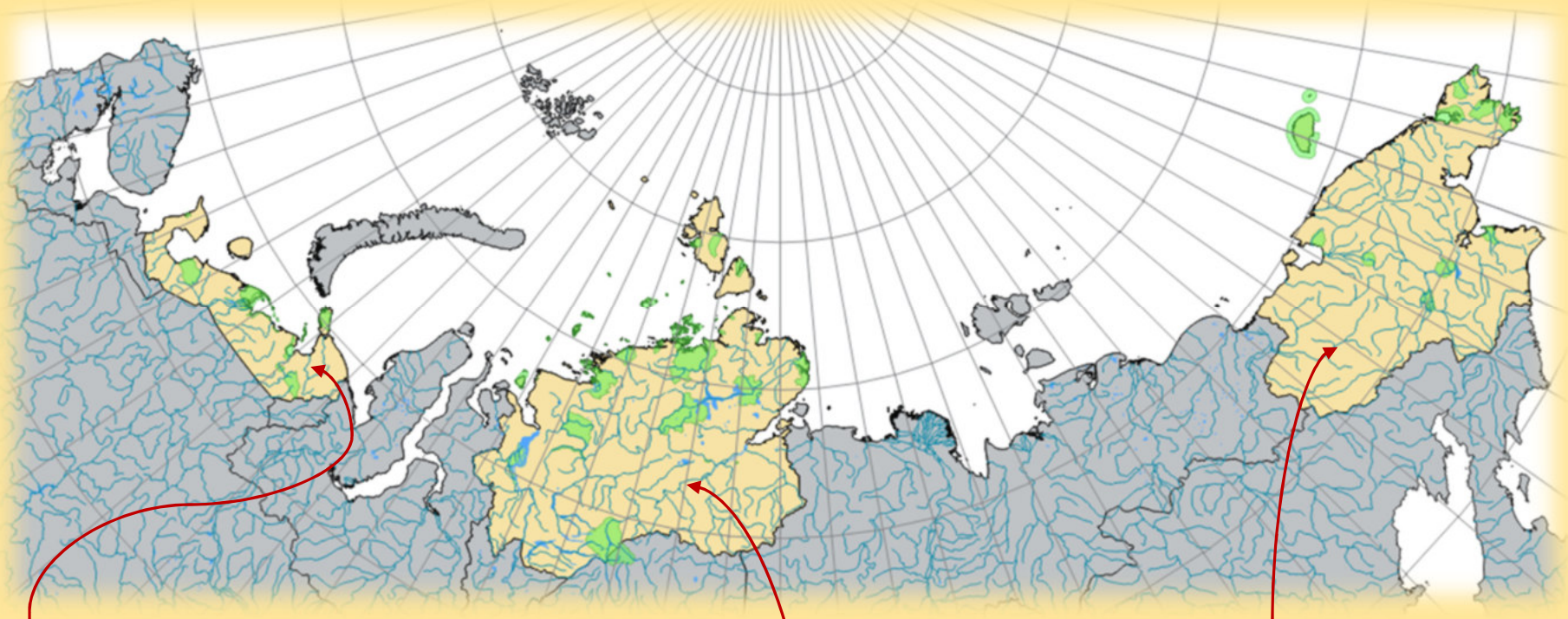
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Focus Regions



Nenetsky District

(Nenetsky Autonomous Okrug):

12 PAs including 3 Nature monuments;
10% of the whole territory.

Taimyr (Taimyrsky Municipal District):

7 PAs;

9% of the whole territory.

Chukotka

(Chukotsky Autonomous Okrug):

28 PAs including 21 Nature monuments;
5% of the whole territory.



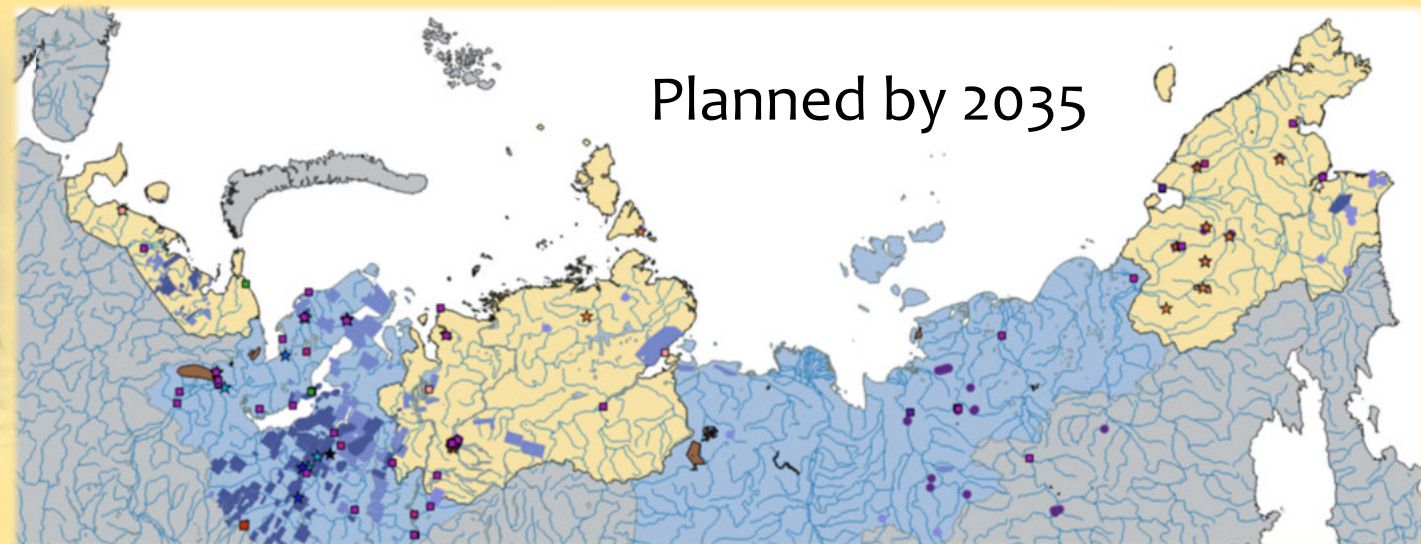
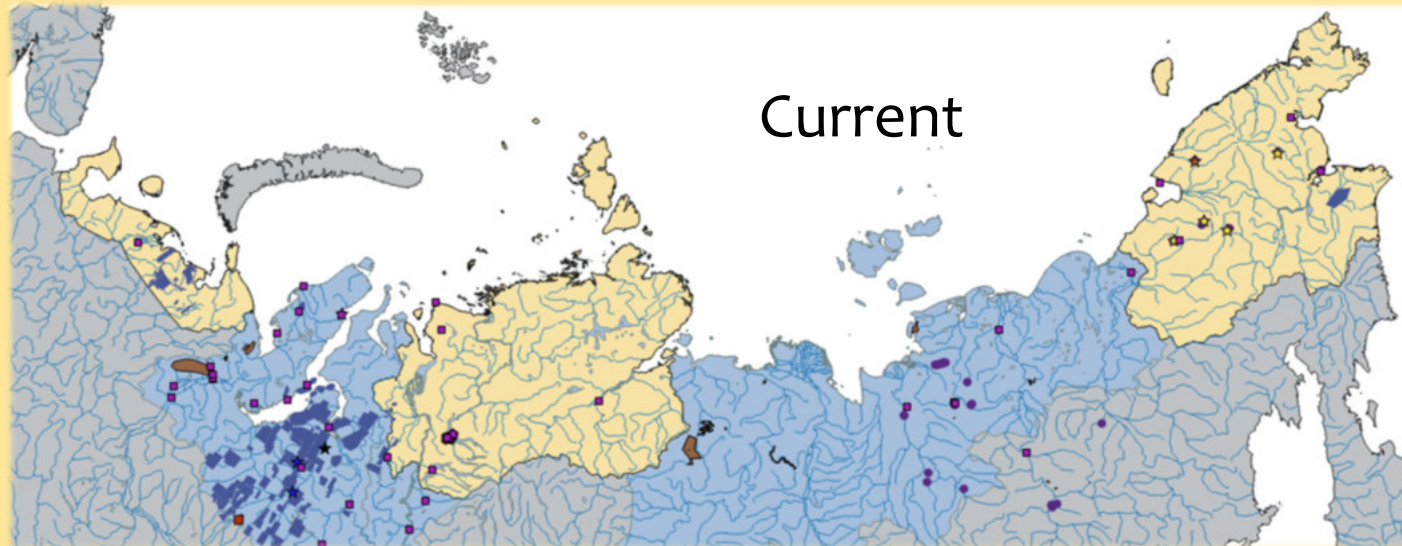
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Industrial Development in Focus Regions





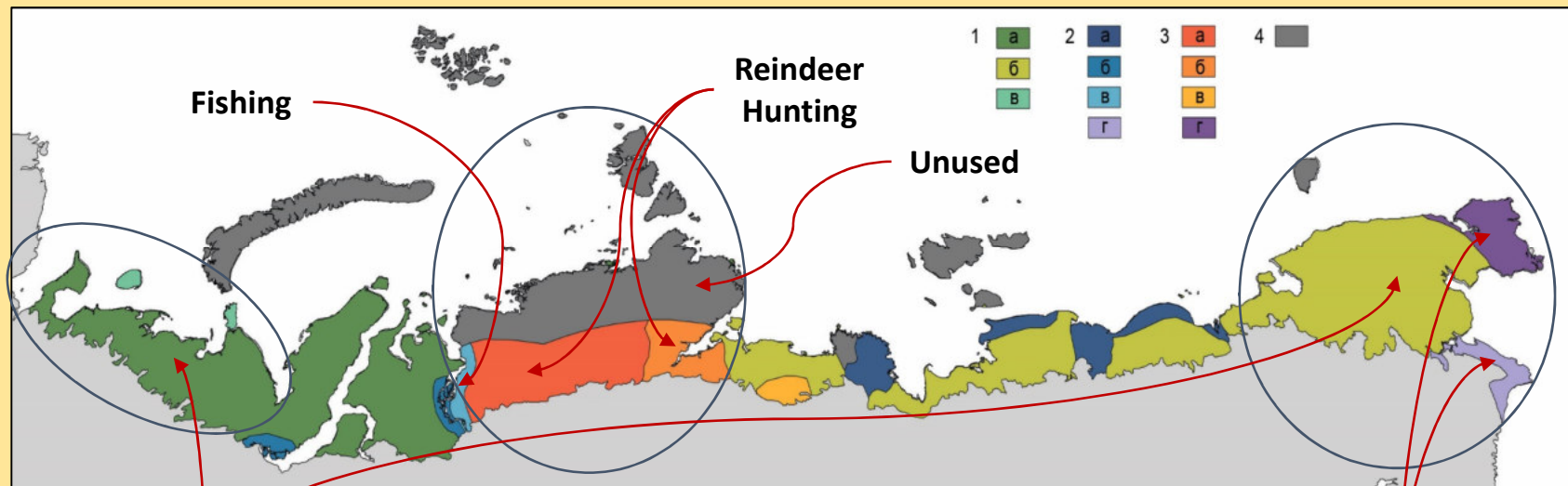
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Prevailing types of traditional nature use in focus regions



Reindeer Husbandry



Marine Hunting



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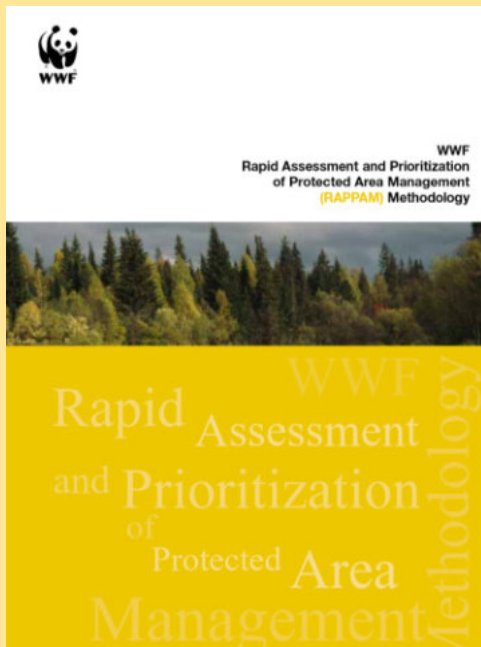
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PA Effectiveness Assessment Tools

Rapid Assessment and Prioritization of Protected Area (RAPPAM)

- Biological and Socio-Economic Importance
- Vulnerability
- Threats & Pressures
- Management Effectiveness



Assessment of Conservation Effectiveness of Protected Areas and their regional systems

- Conservation Value;
- Conservation Effectiveness;
- Potential Conservation Effectiveness;
- Perspective Conservation Effectiveness





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Conservation Importance





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Biological & Socio-Economic Importance





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Conservation Value & Effectiveness





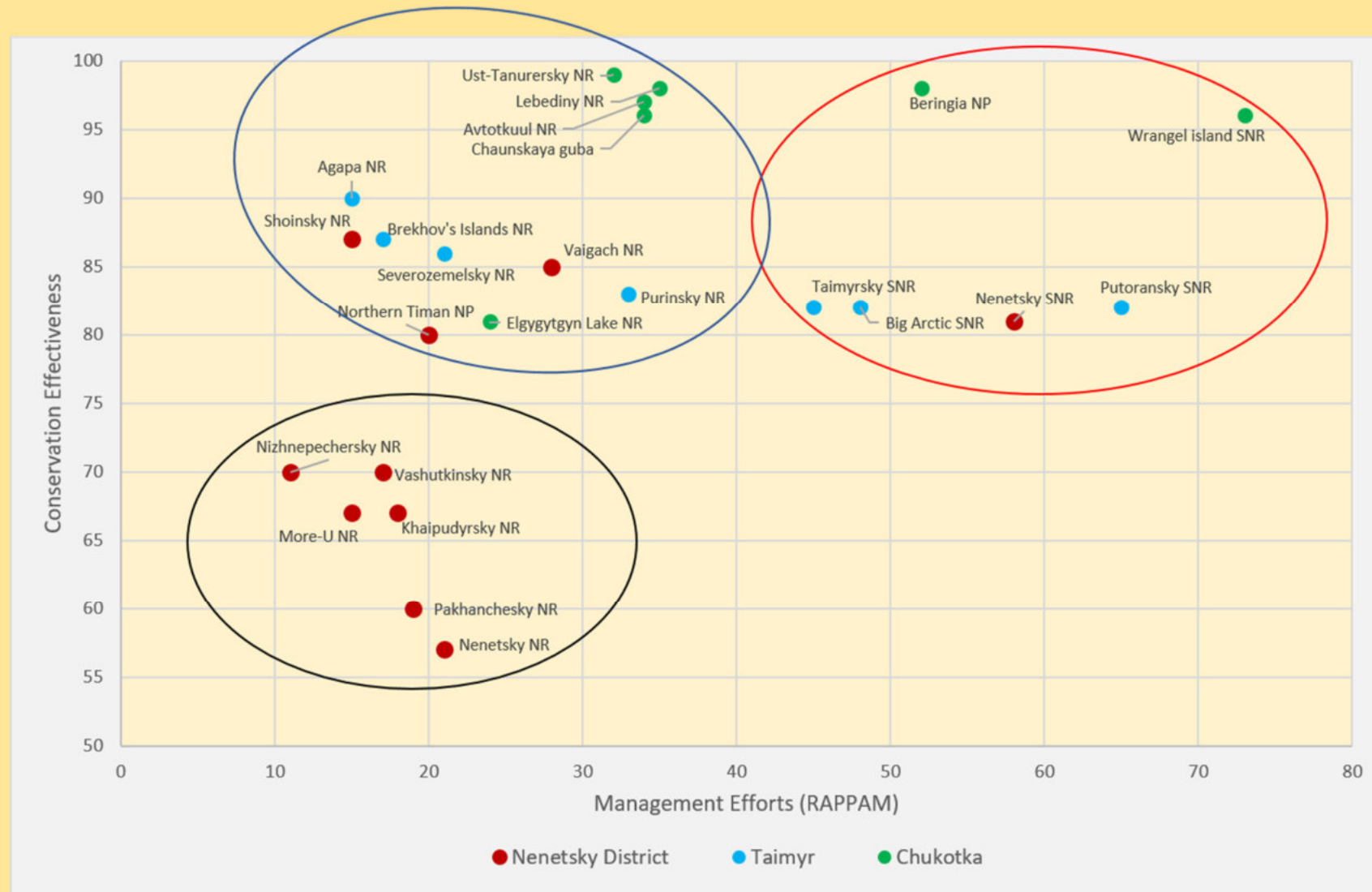
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Management Effort & Conservation Effectiveness





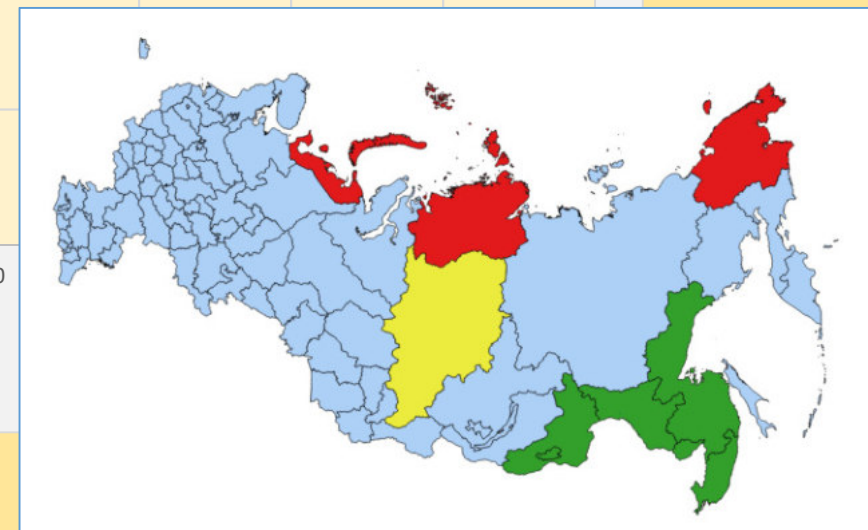
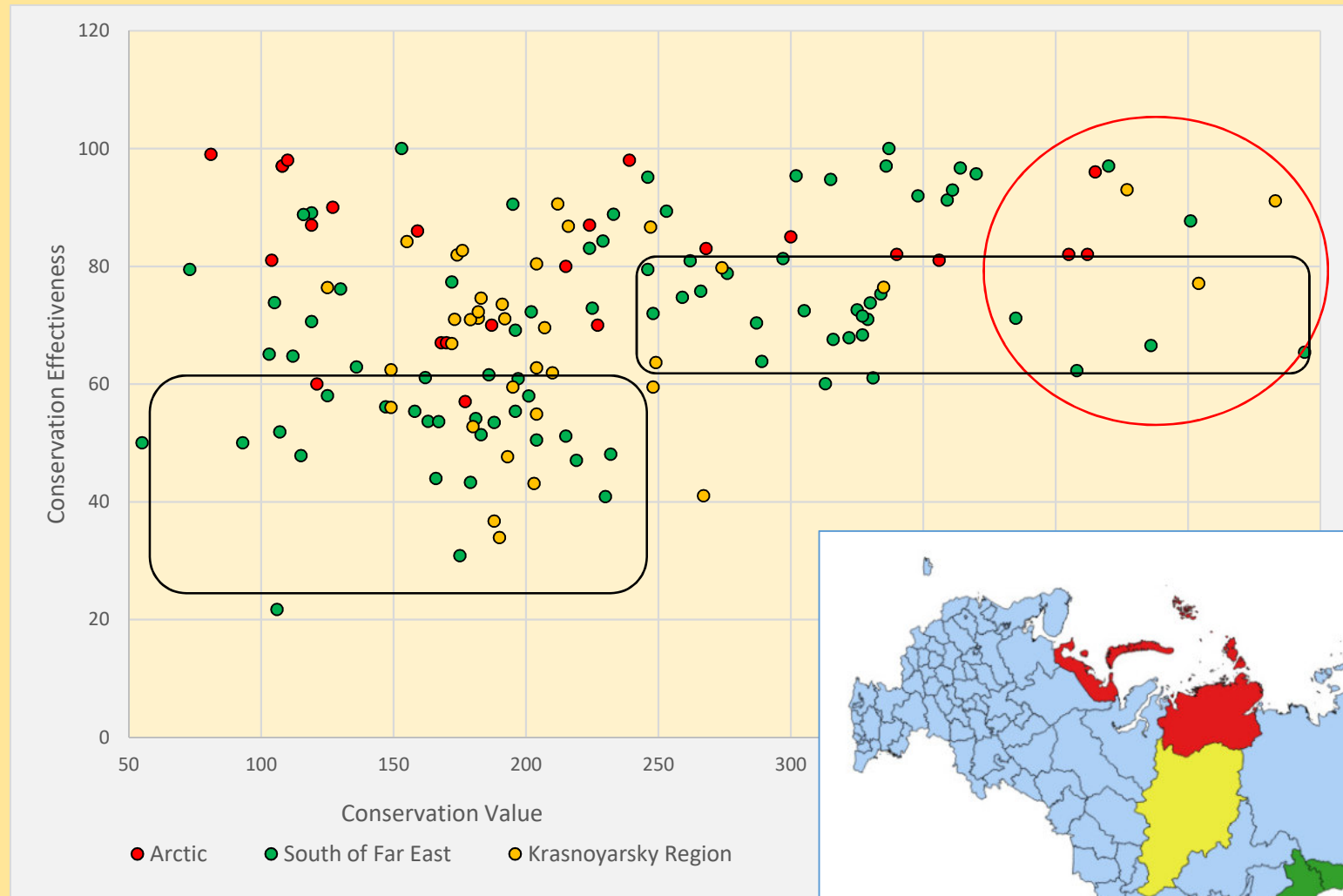
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Conservation Effectiveness in different regions of Russia





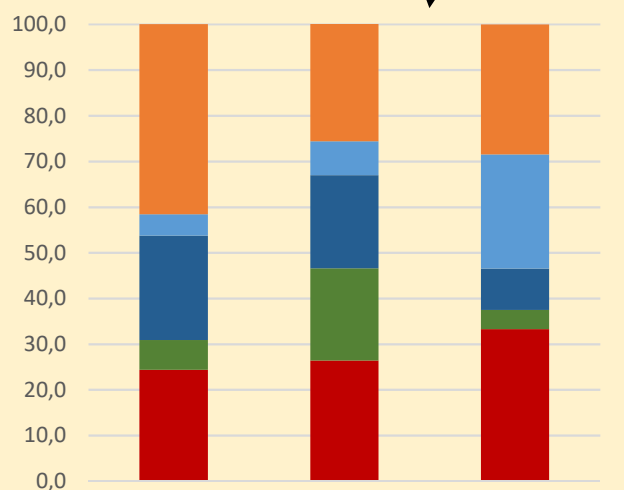
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Factors of Conservation Effectiveness Incompleteness and Potential Conservation Effectiveness



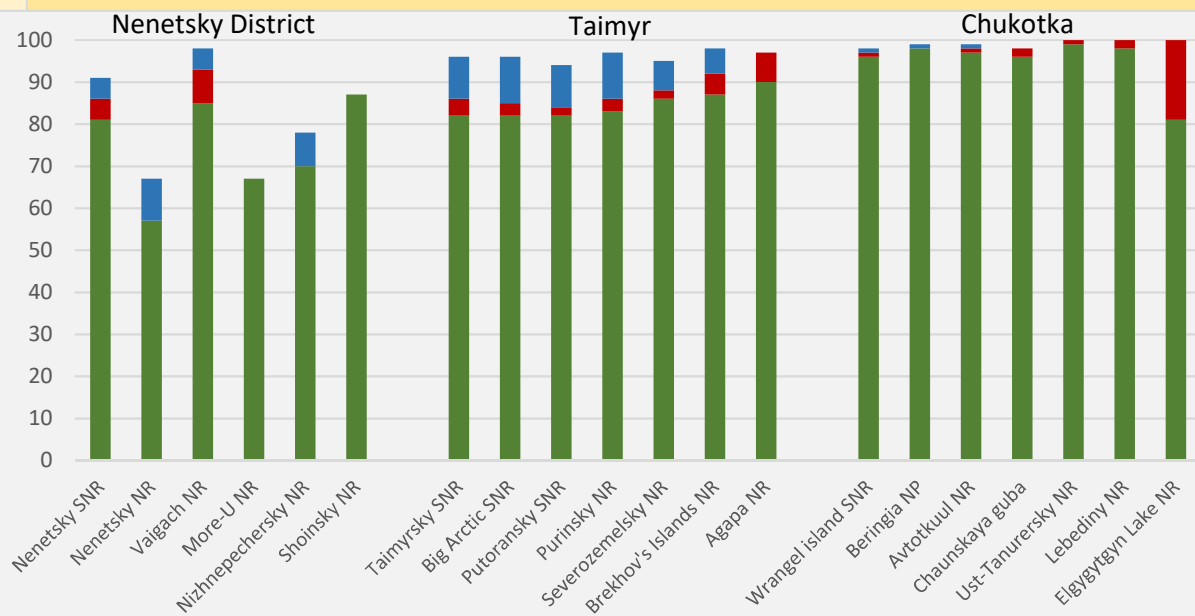
Nenetsky
District

Taimyr

Chukotka

- Unremovable Factors
- External Impacts (remote)
- External Impacts (neighboring)
- Planning imperfection
- Management weakness

- current effectiveness
- potential effectiveness increasing by management improvement
- potential effectiveness increasing by removal of all factors

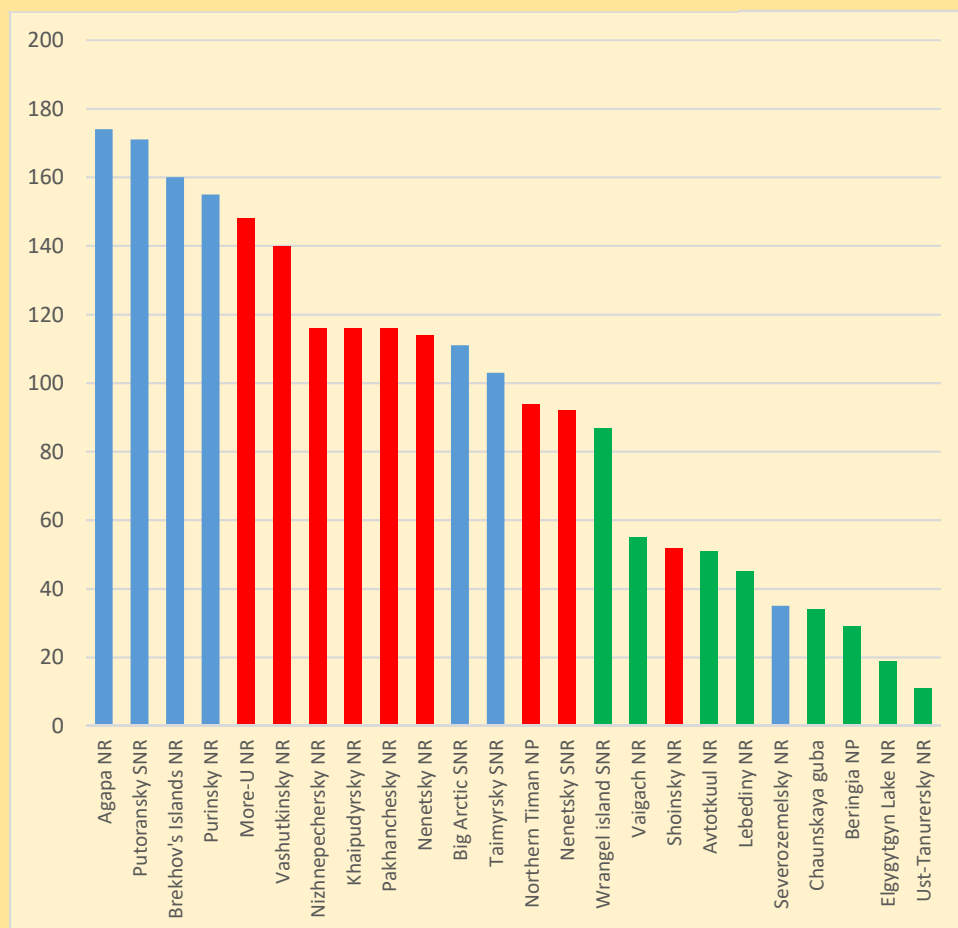




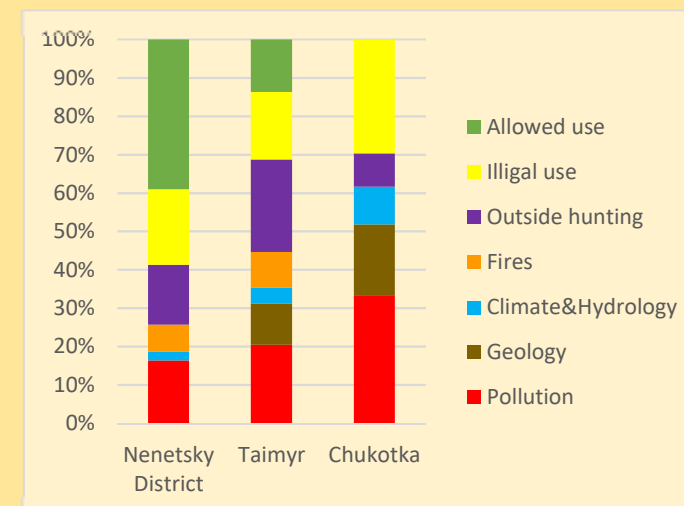
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Expected future anthropogenic threats and pressure

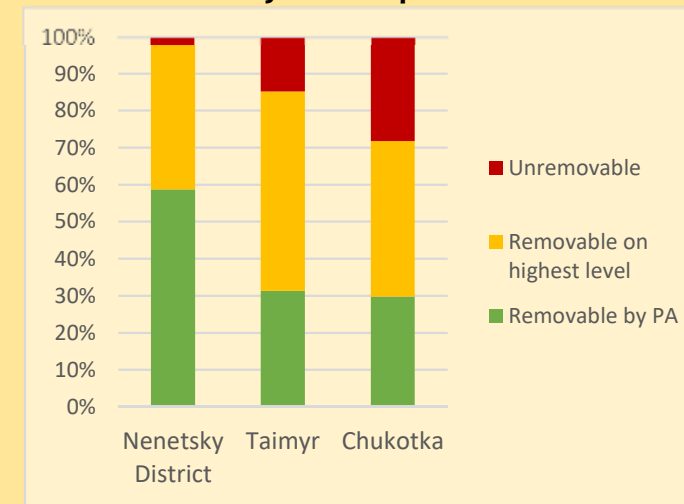
Sum of expected threats



Types of expected threats



Removability of expected threats





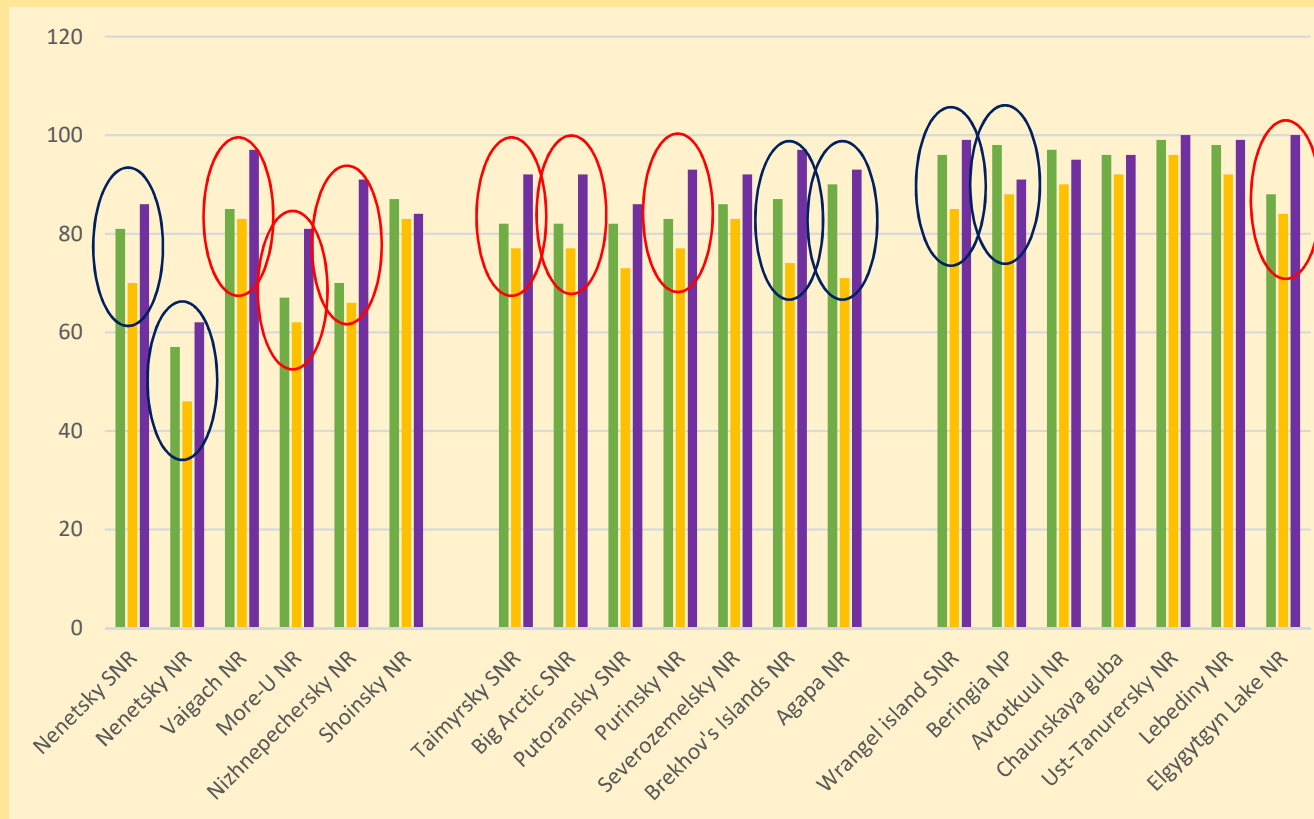
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Prospective conservation effectiveness in stable environment conditions



- current effectiveness
- perspective effectiveness if no preventing & mitigation measures are undertaken
- perspective effectiveness if all possible preventing & mitigation measures successfully implemented



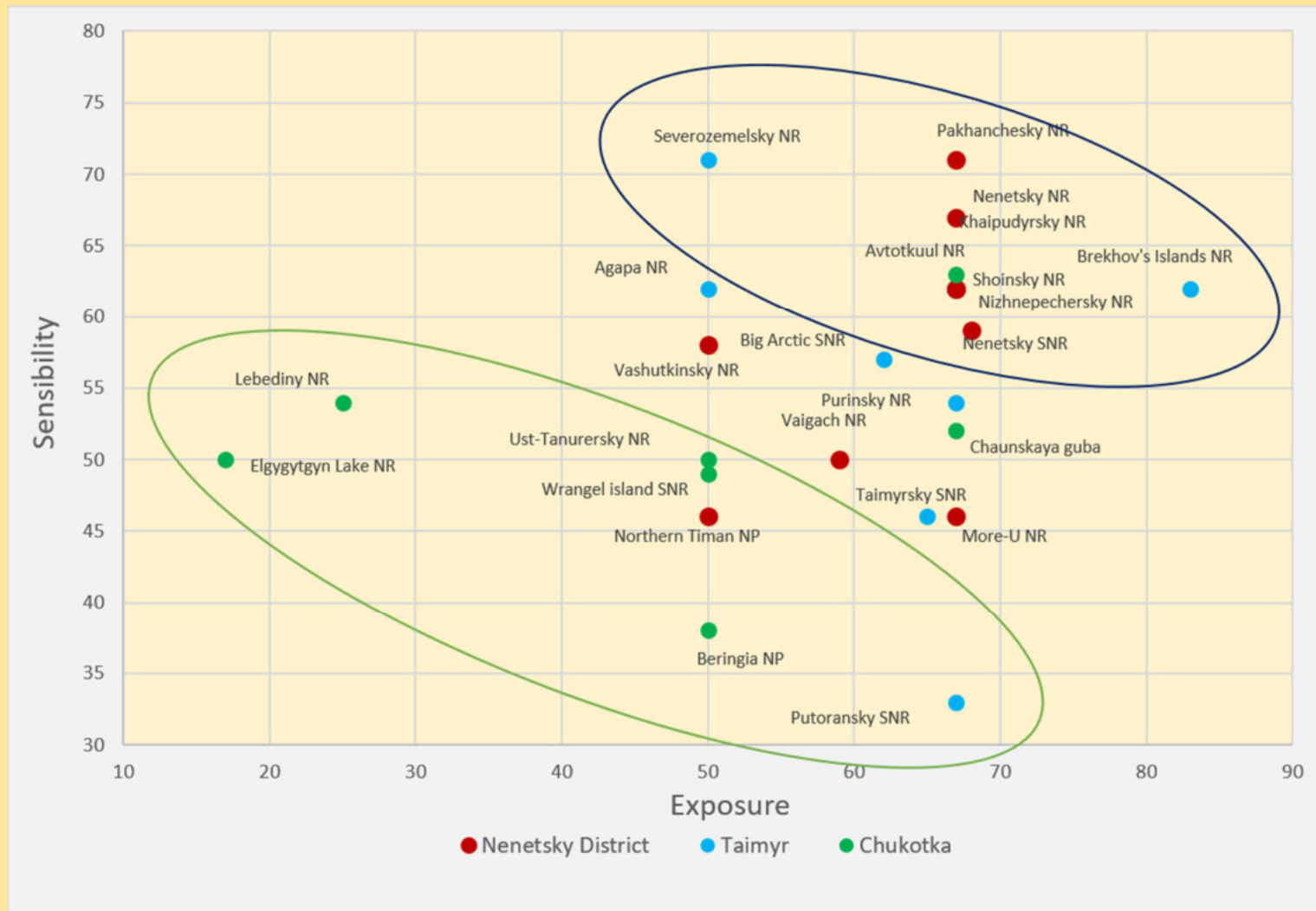
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PAs vulnerability caused by expected climate change

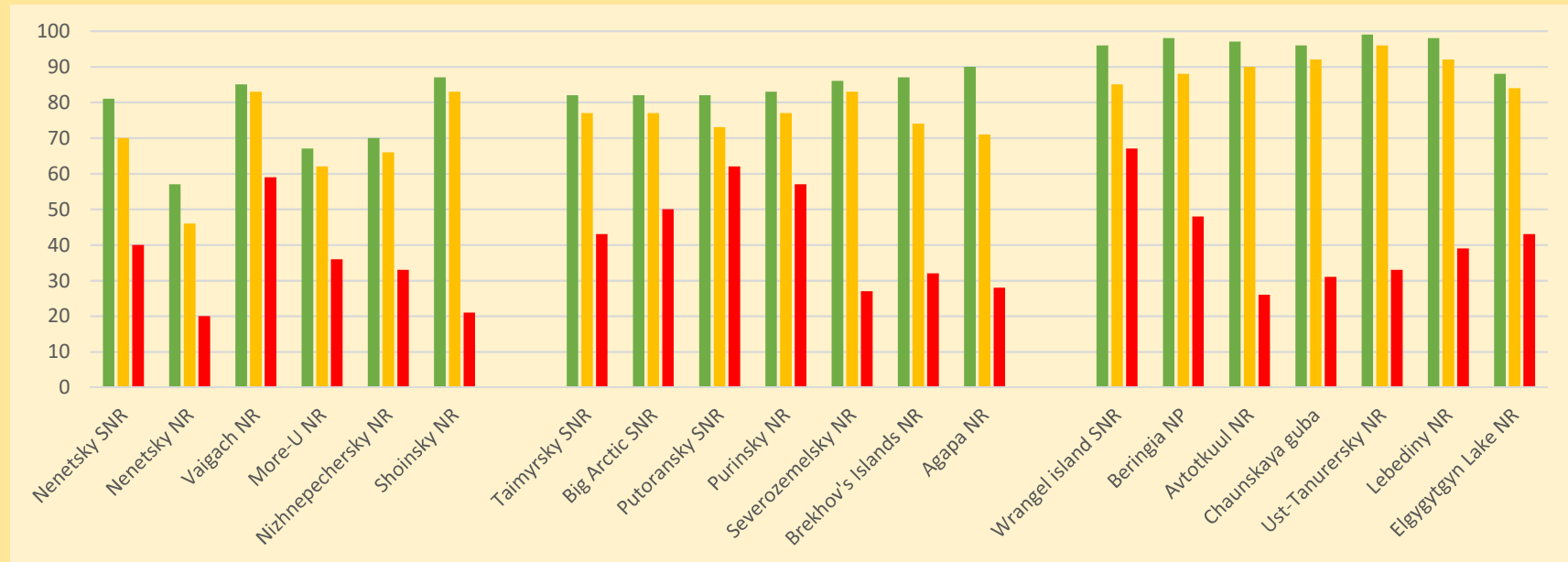







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Perspective effectiveness for conservation of **current values** under expected climate change



-  - current conservation effectiveness
-  - perspective conservation effectiveness in stable climate conditions if no measures against anthropogenic threats are undertaken
-  - perspective effectiveness for conservation current values under expected climate change



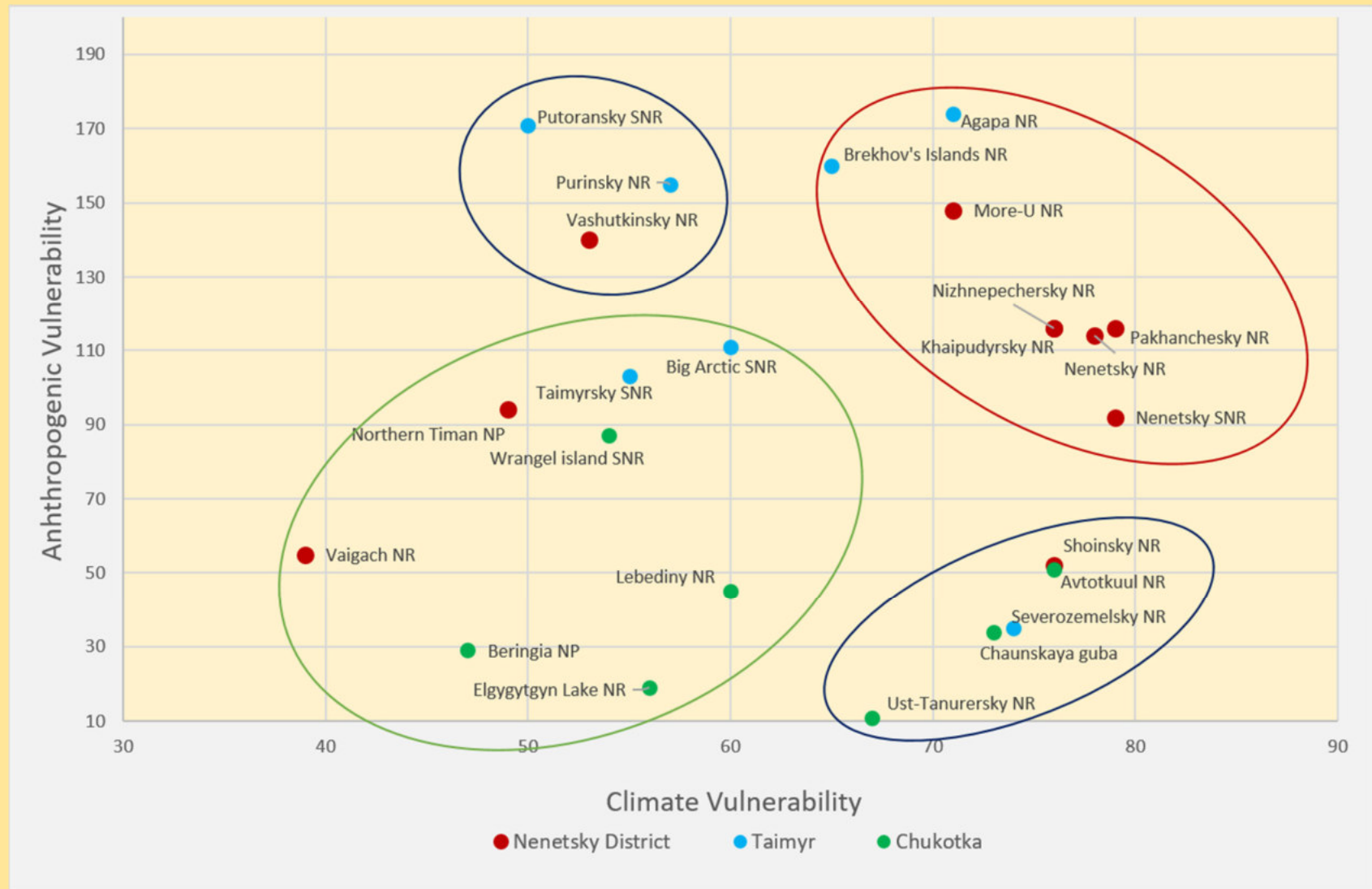
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CONCLUSIONS: Current Effectiveness

Current conservation effectiveness of PAs in focus arctic regions is quite high, in most cases sufficient and in average exceeds the effectiveness of PAs in more southern regions;

High conservation effectiveness of PAs largely determinate by their remoteness and mostly undeveloped surrounding, so that even under weak management it could be quite sufficient

In general, PA conservation effectiveness higher in most undeveloped and remote areas and in PA of highest protection categories (Zapovedniks, National Parks)

There is potential to increase conservation effectiveness of some PA by improving management and/or by reducing external anthropogenic impacts



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CONCLUSIONS: Prospective Effectiveness

In nearest decades conservation effectiveness could essentially decrease due to planned industrial development, but there are the chances to compensate it and at least keep on current level, undertaking the measures preventing and mitigating expected impacts

The effectiveness of PAs for conservation their current nature value also could seriously decrease by the middle and especially by the end of century. It could be compensate by creating new PA in expectedly most stable areas and areas where natural values could move from existing PAs

In case of successful implementation of mentioned measures preventing anthropogenic impact, current PAs could save their high conservation effectiveness and in future with the possibility of changing their protected nature values



This project is part of the International Climate Initiative (IKI)

The Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) supports this initiative on the basis of a decision adopted by the German Bundestag