

OVERVIEW OF NEESPI: WHERE WE'VE BEEN AND WHERE WE'RE GOING

INTERAGENCY MEETING
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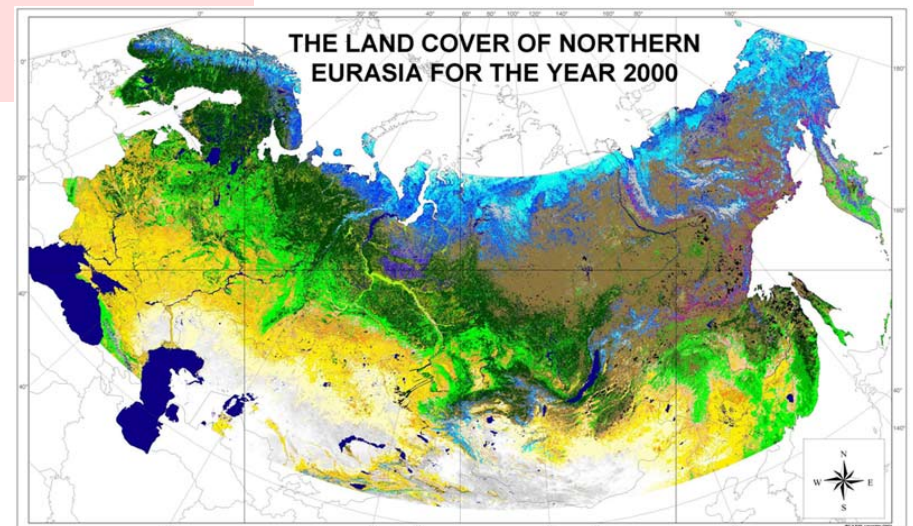
What is the NEESPI?



The **Northern Eurasia Earth Science Partnership Initiative (NEESPI)** is

- an active multidisciplinary program of research focused on critical Earth system science issues in Northern Eurasia
- a strategically evolving program of internationally-supported environmental research,
- a program that addresses scientific issues in northern Eurasia which are relevant to regional and global scientific and decision-making communities.

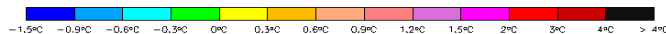
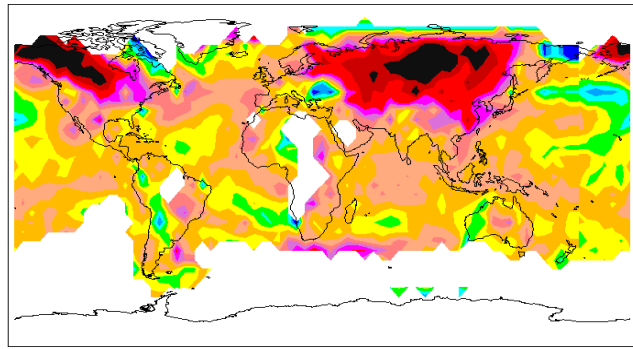
The NEESPI area of study is the Earth's largest land mass. It is characterized by complex land cover heterogeneity



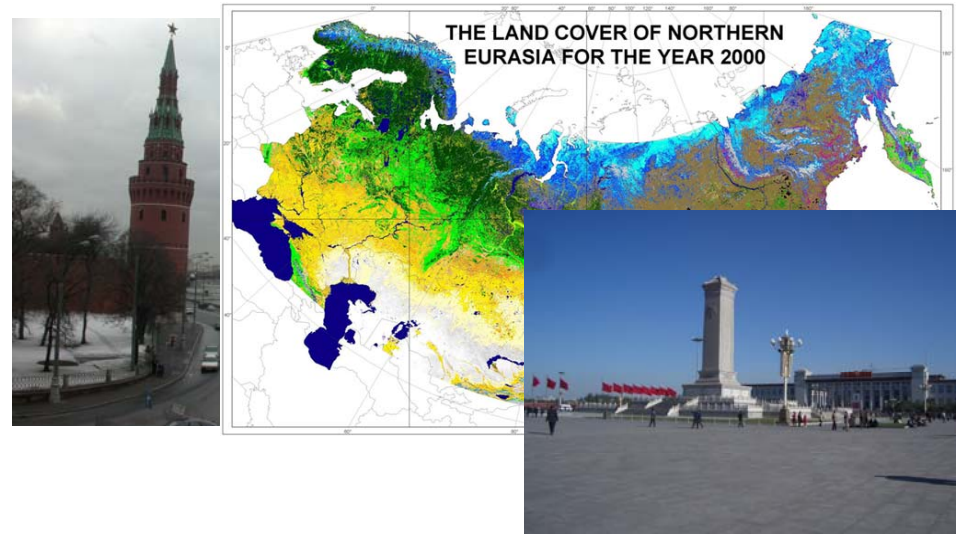
NORTHERN EURASIA IS IMPORTANT BECAUSE:

THE AREA CONTAINS AT LEAST TWO MAJOR GEOPOLITICAL POWERS

**Mean Winter Temperature Change
1965 to 2004 over the globe**



- Data source: (Jones and Moberg 2003). Processed by the U.S. NOAA NCDC Global Climate at the Glance Mapping System.



THE AREA IS VERY SENSITIVE TO CLIMATE CHANGE

CURRENTLY THIS REGION IS DATA SPARSE. HOWEVER, THE AREA IS OF GREAT INTEREST TO EUROPE AND WHEN THEIR RESEARCH FUNDING ABILITY IS COMBINED WITH THE INTERESTS OF THE USA AND THE RESEARCH CAPABILITIES OF CHINA IT BECOMES THE NEXT REGION WHERE A MAJOR ENVIRONMENTAL PROGRAM SHOULD/COULD BE MOUNTED.

WHY STUDY NORTHERN EURASIA NOW?

Northern Eurasia is in transition:

Sources of Change:

PHYSICAL:

- LAND USE CHANGES ARE INFLUENCING AND BEING INFLUENCED BY CLIMATE CHANGE
- WATER AND LAND RESOURCE MANAGEMENT ISSUES

SOCIOECONOMIC:

- INFRASTRUCTURE DEVELOPMENT (e.g. collectives disbanded, social services almost stopped)
- INSTITUTIONAL AND POLICY CHANGE (e.g., privatization)
- MARKET ACCESS (e.g., reduced subsidies)

Technology (Earth satellites, models) and political interest are combining to create a window of opportunity.

THE NEESPI TIMELINE

- 2000: A GROUP OF SCIENTISTS WITH NASA SUPPORT (US) AND FROM RAS MET TO DISCUSS THE POSSIBILITY OF A PROJECT IN NORTHERN EUROASIA.
- 2001: A SECOND MEETING WAS HELD BETWEEN NASA-FUNDED SCIENTISTS AND RAS.
- 2002: A THIRD MEETING WAS HELD WITH BROADER PARTICIPATION AND A COMMITMENT WAS MADE TO WRITE A SCIENCE PLAN.
- 2003: THE FIRST SCIENCE PLAN WORKSHOP WAS HELD. AN EXTERNAL REVIEW OF THE SCIENCE PLAN TOOK PLACE AND REVIEW COMMENTS WERE PREPARED.
- 2004: THE SCIENCE PLAN WAS FINALIZED AND A SUMMARY PAPER WAS PREPARED. THE REVISED SCIENCE PLAN WAS ADOPTED BY THE COMMUNITY.
- 2005: NASA INITIATED STEPS TO BROADEN THE SUPPORT FOR THE PROGRAM BY MAKING IT MULTIAGENCY AND FULLY INTERNATIONAL. IGPO WAS ENLISTED TO HELP WITH THIS ENDEAVOUR. SOME ASPECTS OF THE MANAGEMENT APPROACH WERE REVISED AND A NEW COORDINATION MECHANISM IS BEING EXPLORED.

PROGRAM IMPLEMENTATION

THE NATIONAL NEESPI PROGRAM WILL BE DELIVERED THROUGH INDIVIDUAL PROJECTS FUNDED THROUGH AGENCY PROGRAMS AND AGENCY RESEARCH ACTIVITIES. DIFFERENT ASPECTS OF THE PROGRAM WILL BE COORDINATED THROUGH RESEARCH CENTERS. SCIENCE CENTERS WILL BE DEVELOPED TO PROVIDE COMMON SERVICES (E.G., DATA MANAGEMENT)

MANY US AGENCIES CARRY OUT RESEARCH RELATED TO NEESPI (FY 2006 AND BEYOND)

	NASA	NOAA	NSF	Others	NEEDED
Pilot projects and networks	0.5 M*	≥0.1M	?	?	TBD
Carbon Cycle	2.0 M*	?	>2.0 M	?	TBD
Water Cycle	2.0 M*	?	>2.0 M	?	TBD
Land	1.0 M*	?	>1.0 M	?	TBD
Proposed NEESPI Project Office Support	0.16 M*	TBD	TBD	TBD	0.48 M

* amounts are based on 2005 fiscal year funding

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THE NATIONAL PROGRAM WILL BE COORDINATED THROUGH A SCIENCE ADVISORY PANEL AND THROUGH AN INTERAGENCY COMMITTEE. THIS COORDINATION ROLE WILL BE FACILITATED BY A COORDINATION OFFICE WHICH WILL MAINTAIN A WEB SITE, PRODUCE NEWSLETTERS AND BROCHURES, SET UP MEETINGS, REPRESENT NEESPI AS NEEDED, ETC.

THE PROGRAM WILL ALSO BE COORDINATED AT THE INTERNATIONAL LEVEL BY AN INTERNATIONAL SCIENCE ADVISORY COMMITTEE AND AN INTERNATIONAL COORDINATION COMMITTEE (UNLESS IT IS ADOPTED BY A PROGRAM SUCH AS ESSP).

Currently, we envision six NEESPI Focus Research Centers

- **Existing:**
- *Center for Cold Land Processes and Arctic Coastal Studies*
- *Center for Water System Studies*
- *Center on Aerosol Studies*
- *Center for Land Use Studies*

Projected:

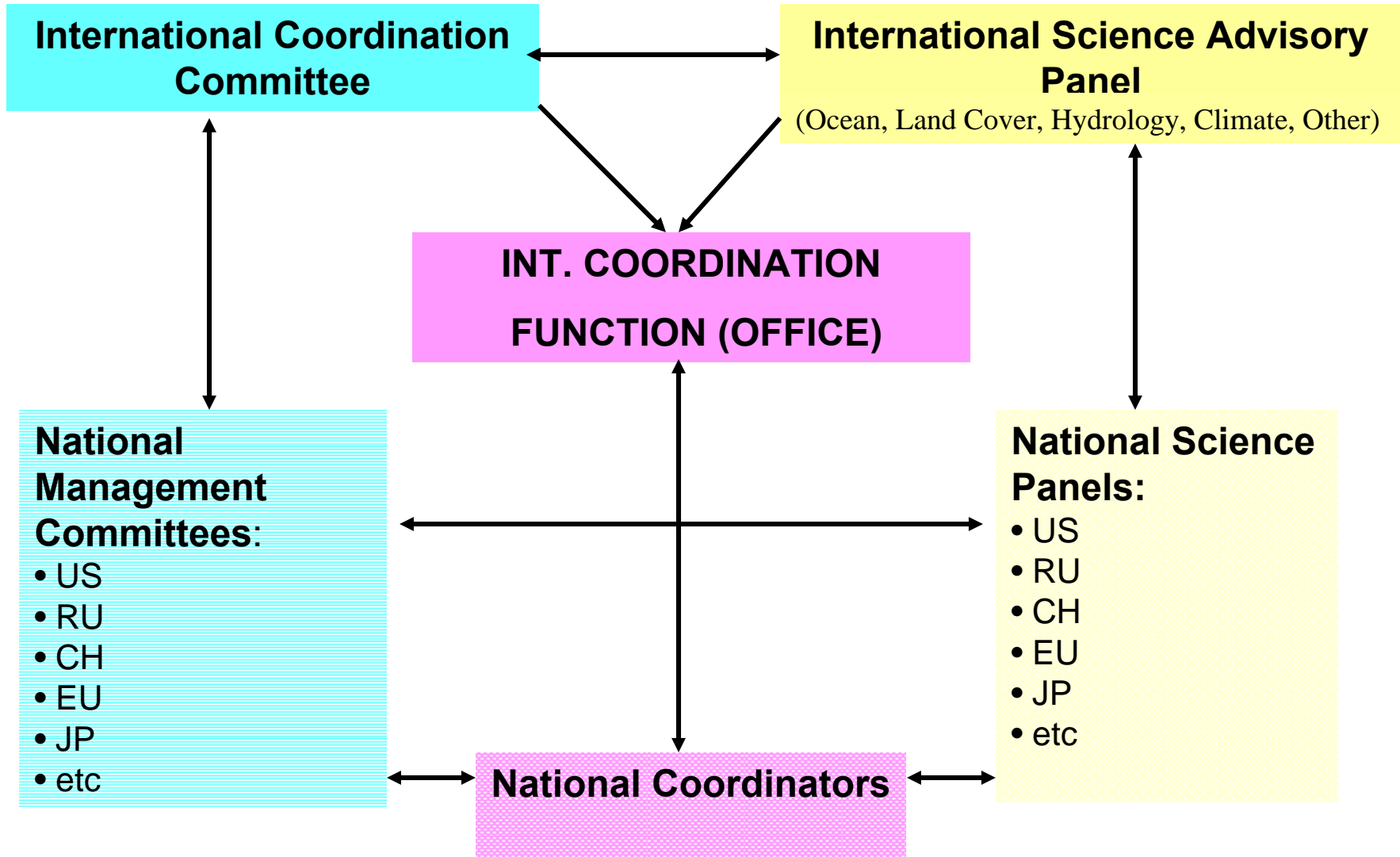
- *Center for Biogeochemical Cycle Studies*
- *Center for Integration of the NEESPI Results and Modeling Studies*

Existing NEESPI Focus Research Center

NEESPI Focus Research Center for Cold Land Processes and Arctic Coastal Studies

- **Venue:** International Arctic Research Center, University of Alaska Fairbanks, Alaska
- **Objectives:** conduct, promote, and facilitate research aimed at improved understanding and modeling of the cold land processes in the Earth System focusing on Northern Eurasia and its coastal zone
- **Links to International Projects:** CliC
- **Leaders:** Romanovsky, Walsh, Walker, Sergienko
- **Current Science foci:**
 - Permafrost
 - Cold land hydrology and global biogeochemical cycles
 - Cryosphere interactions with climate, biota, and environment
 - Humans in the Arctic
- **Funded and pending proposals to NSF, NOAA, NASA, JAMSTEC, JAXA, Far Eastern Branch of Russian Academy of Sciences, DOE, and to IPY.**
- **Other relevant activities:**
 - ✓ The Focus Research Center is going to serve as one of the base institutions for CliC studies in Northern Eurasia and Alaska

NEESPI Organizational Structure



Management Coordination Committees (to meet no more than once a year)

International Coordination Committee:

Reviewers: National Representatives (national representation) and International Program Representatives (IGBP, WCRP, IGOS, GEOSS, etc)

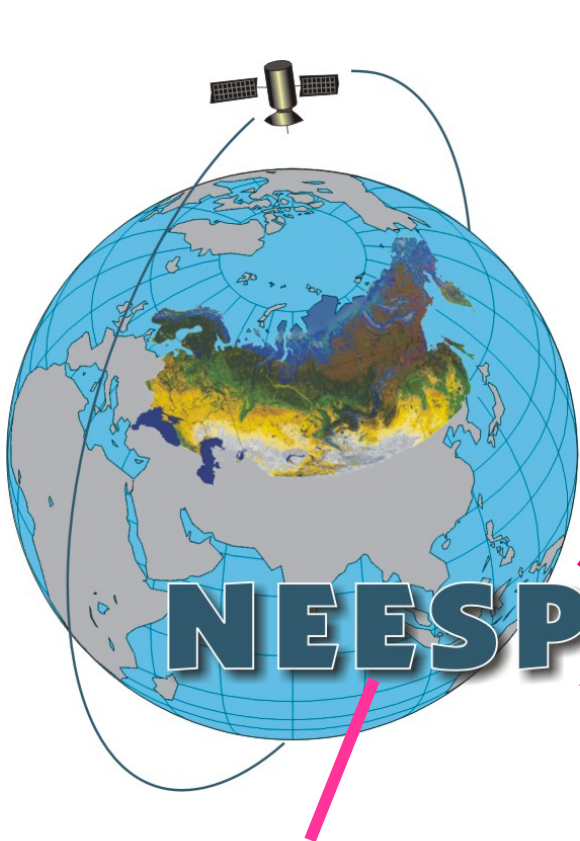
Function: The Chair of the International Science Panel will present status reports, needs for international coordination and support, policy issues, etc. to the International Coordination Committee.

National Management Committee:

Reviewers: Agency Representatives, Representative of the project funders

Function: The National Science Panel Chair will present policy issues, progress reports, suggestions of calls for proposals, etc for discussion by the National Management Committee

NEESPI international links are being developed



NEESPI has been adopted as a fast track GWSP project



CLIC MOU has been developed to blend mutual objectives & research plans



NEESPI is seeking continental scale experiment status

IPY NEESPI Pre-proposal accepted as a core activity



iLEAPS invited to nominate representative to NEESPI committee

COMPLICATING FACTORS AND UNRESOLVED QUESTIONS

1. WE NEED TO ESTABLISH A NATIONAL STRUCTURE AS SOON AS POSSIBLE. AGENCIES ARE INVITED TO NAME INDIVIDUALS WHO WILL WORK WITH US.
2. NEESPI WILL CONSIST OF FUNDED PROJECTS FROM ALL AGENCIES AND THIS WILL BE THE BASIS OF AN IMPLEMENTATION PLAN.
3. BEFORE APPROACHING OTHER COUNTRIES TO BECOME INVOLVED IN NEESPI IT WOULD BE ADVANTAGEOUS TO DEVELOP A POSITION OF INTER-AGENCY COOPERATION IN THE USA, WE NEED A PROCESS FOR WORKING TOWARDS THAT GOAL.
4. WHILE NEESPI AND SEARCH ARE SIMILAR AND ADDRESS MANY COMMON ISSUES SEARCH HAS NOT EMBRACED NEESPI BECAUSE OF ITS GEOGRAPHICAL (AND TERRESTRIAL) FOCUS.
5. NASA'S COMMITMENT TO A NEESPI OFFICE CONTINUES UNTIL SEPTEMBER 30, 2005. NEW FUNDS MUST BE FOUND TO CONTINUE IT BEYOND THAT DATE.
6. WE ARE SEEKING FUNDS WHILE BUDGETS GENERALLY ARE DECREASING.

OBJECTIVES OF THE MEETING

1. TO INFORM AGENCIES OF THE NEESPI PROGRAM AND THE STATUS OF ITS DEVELOPMENT.
2. TO DEVELOP A CROSS-AGENCY INVENTORY OF PROJECTS, EXPERTISE AND INTERESTS IN NORTHERN EURASIA.
3. TO OBTAIN ADVICE ON THE IMPLEMENTATION OF NEESPI AT BOTH NATIONAL AND INTERNATIONAL LEVELS.
4. TO POPULATE AN INTER-AGENCY NEESPI GROUP WITH EXPERTS FROM EACH COMMITTED AGENCY.
5. TO BEGIN THE PROCESS OF SECURING FINANCIAL COMMITMENTS FROM AGENCIES NEEDED TO SECURE THE CONTINUATION OF THE NEESPI COORDINATION OFFICE BEYOND OCTOBER 1, 2005.