



GOFC

Global Observation of Forest Cover

Boreal Forest Workshop

*Hosted by the
Russian Academy of Sciences,
Siberian Branch*

*August 28 - September 1, 2000
Academgorodok, Novosibirsk, Russia*



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Homepages

<http://www.gofc.org/gofc/boreal.html>

<http://www.ict.nsc.ru/ws/boreal/index.en.html>



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Participants

~40 Russia

10 United States

4 Canada

*1 Italy, Germany, Sweden, France,
Finland*



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Meeting Objectives

- 1. Summarize key information requirements for different regions of the boreal forest**
- 2. Define how satellite remote sensing data can fulfill these information requirements**
- 3. Identify existing satellite products that fulfill key information requirements →**
Existing GOFC Contributions



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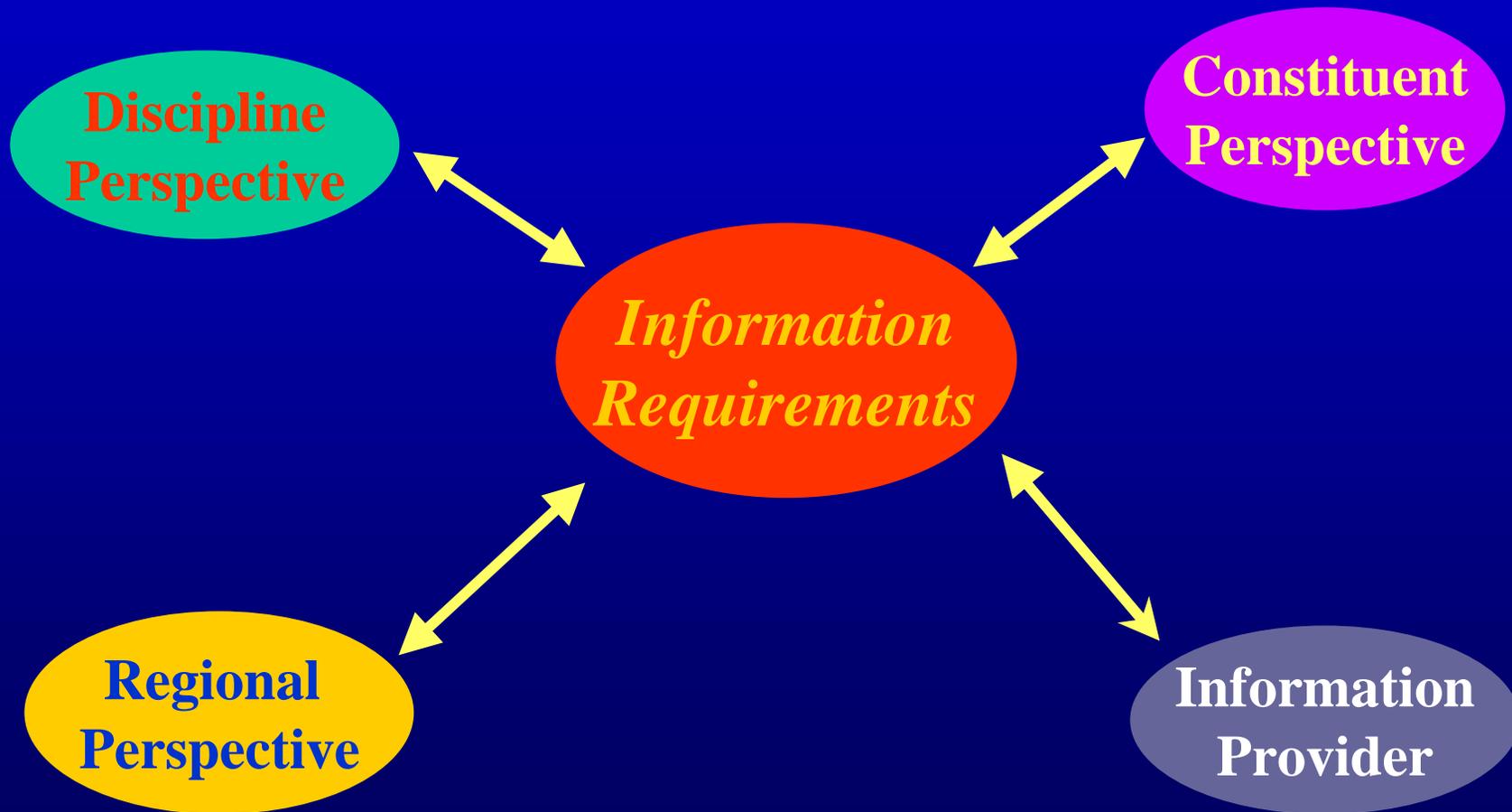
Meeting Objectives

4. Identify potential future GOFC products

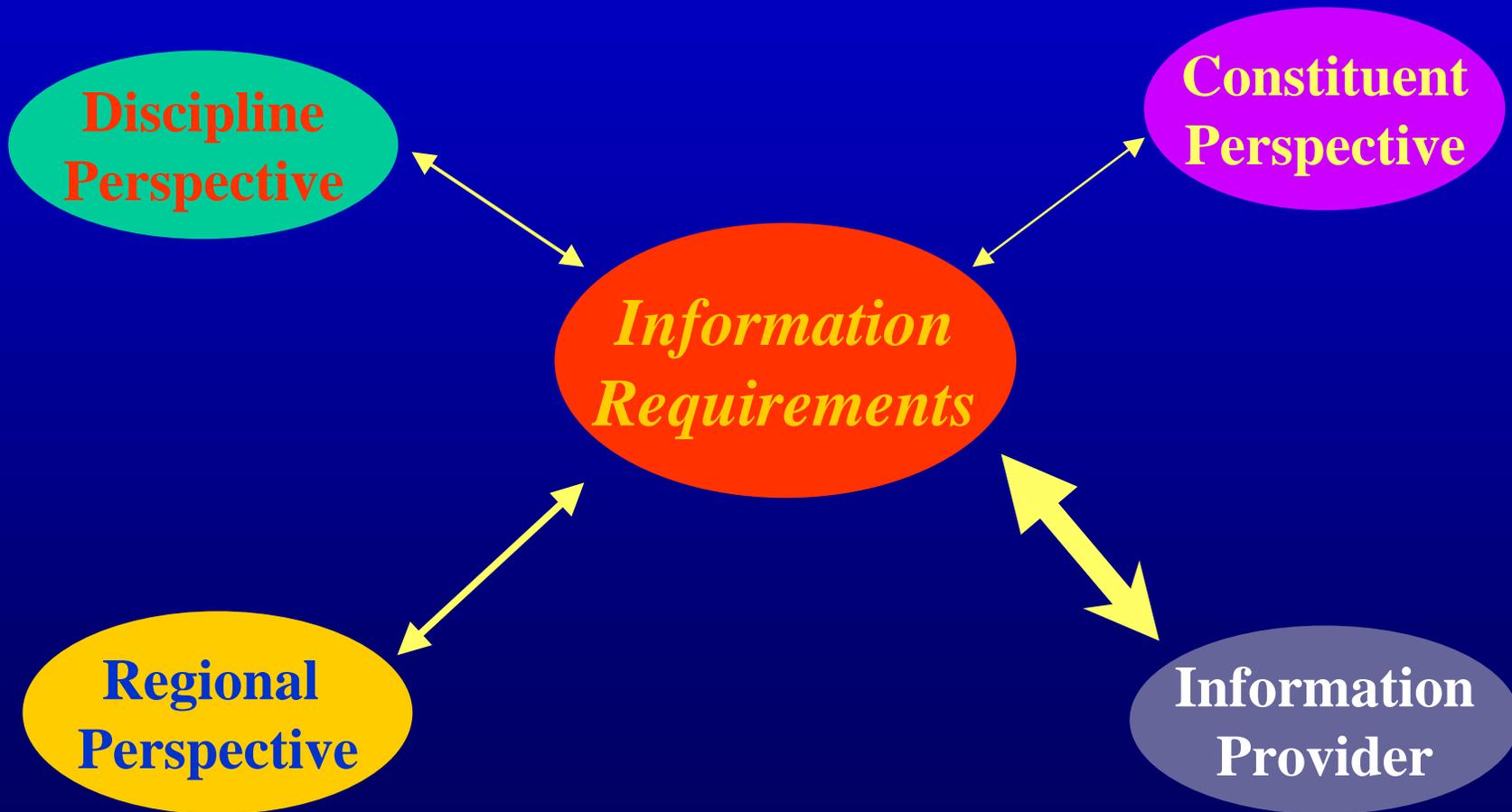
5. Define requirements for the information networks needed to distribute GOFC products to the user communities

6. Recommend steps that will lead to a *Regional Network for Implementation of GOFC in the Boreal Forest*

*Perspectives on Information Requirements
for the GOFCC Boreal Forest Network
Idealized View*



*Perspectives on Information Requirements
for the GOFC Boreal Forest Network
Reality*





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Objective 1 - Summarize key information requirements for different regions of the boreal forest

-While we were able to define the information requirements for the boreal forest region, we did not have a balanced representation from the perspectives of constituents, regions, or disciplines

-GOFC needs to interact with the broader user community to develop a real consensus for information requirements



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Objective 1 - Summarize key information requirements for different regions of the boreal forest

-There was a significant level of discussion in terms of:

- what is the boreal forest?
- what regions are required?



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Boreal Forest Regions

1. *North America (Canada/Alaska)*

What about southern Canada/Northern U.S.?

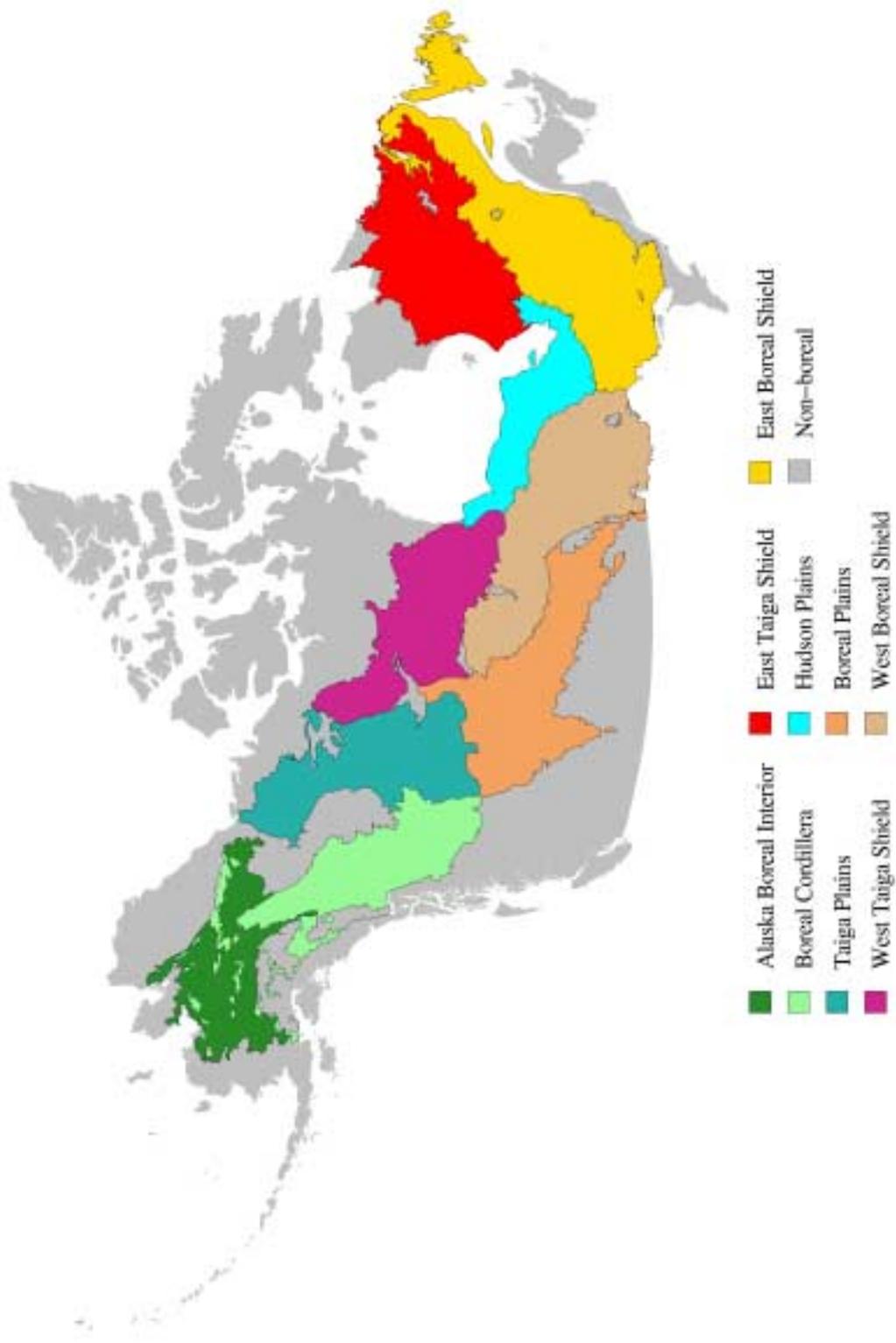
2. *Northwestern Russia/Fennoscandia*

-What about European Russia?

3. *Eastern Eurasia*

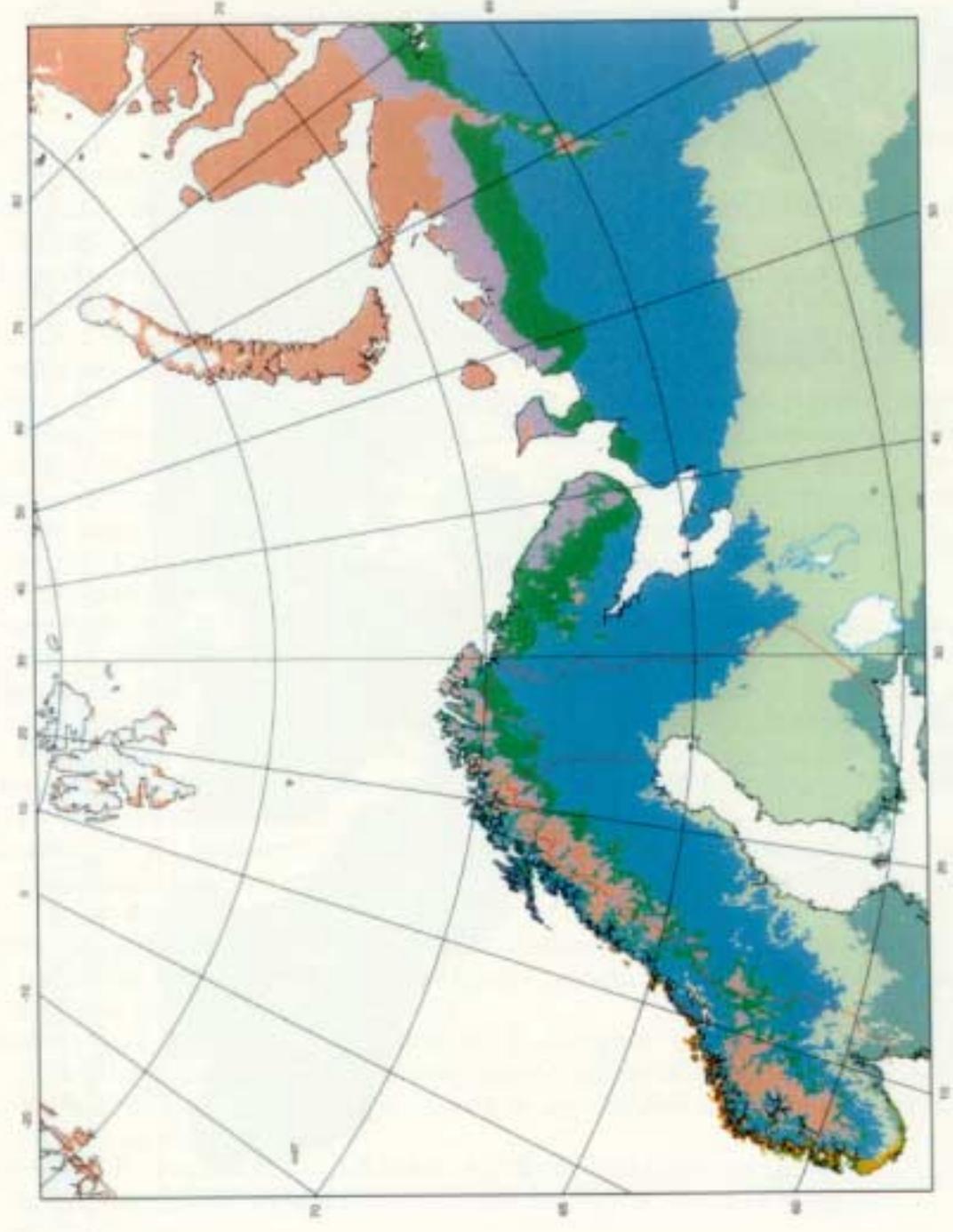
**Siberia, Russian Far East, Mongolia?, Northern
China?**

Further sub-divide this region?



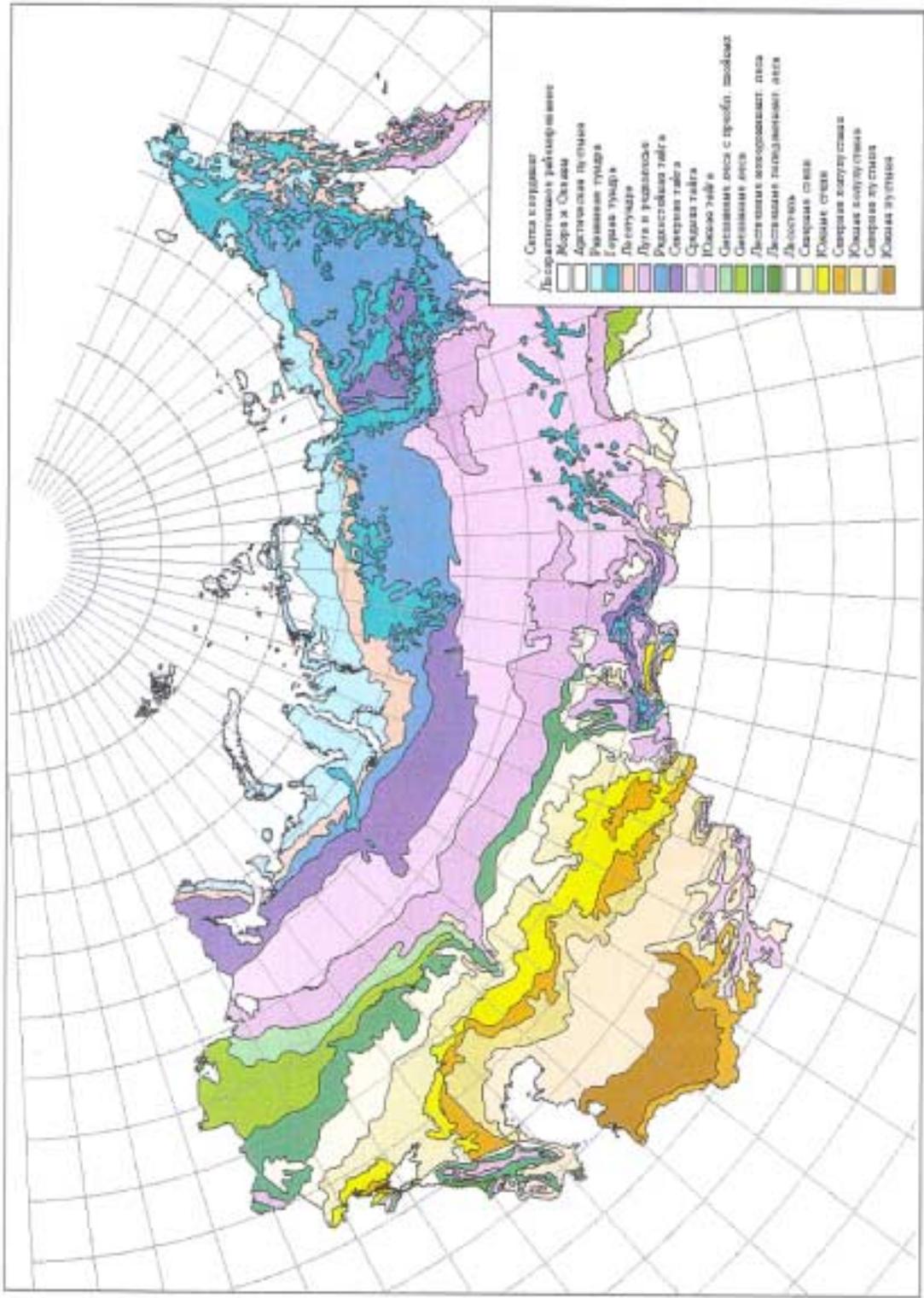
G10PLOT5 V1.3
 Potsdam Institute of Climate
 Impact Research (PIIC)
 31 Aug 1995, 13:28

- broadleaved evergreen forest
- temperate deciduous forest
- cool mixed forest
- cold mixed forest
- cool conifer forest
- cool grass/shrub
- S cold deciduous forest
- N cold deciduous forest
- S taiga
- N taiga
- S tundra
- N tundra
- semidesert
- ice/polar desert



(A)

Figure 16.1. Distribution of potential natural vegetation in Northern Europe as simulated by the BIOME 1.1 model (Prentice et al., 1993b), using a modified version of the climate data base of Leemans and Cramer (1991). (A) Current climate.





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Objective 1 - Summarize key information requirements for different regions of the boreal forest

There are real issues in terms of the delineating boreal versus temperate forests and defining national interests in the GOFC mission that the GOFC PTB need to address*

*PTB = Powers That Be



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Objective 2 - Define how satellite remote sensing data can fulfill these information requirements

Given the large participation by information providers at this workshop, we reviewed a large number of satellite products



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Objectives 3 and 4 – Existing and potential future GOFC products

1. Forest Cover Characteristics and Changes

-New forest cover products based on SPOT VEG, RESOURCES, and MODIS data

-Data archives of high resolution data for regional-scale studies (path-finder data)



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Objectives 3 and 4 – Existing and potential future GOFC products

2. Forest Fire Mapping and Monitoring

-Generation of fire hot spots from operational systems

-Production of burn scar maps using satellite and in situ data sets

-Validation of existing GOFC Fire Products for the boreal forest region



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Objectives 3 and 4 – Existing and potential future GOFC products

3. Forest Biophysical Processes

-Need to engage the global change community in this area

-Regional and Global maps of NPP

-NDVI change maps

-Microwave-based maps of vegetation condition



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Objective 5 - Define requirements for the information networks needed to distribute GOFC products to the user communities

-Discussion of this objective was subsumed by two issues

-What regions are required for the boreal forest (see Objective 1)

-The lack of representation at the meeting by the various user groups



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Objective 6 - Recommend steps that will lead to a *Regional Network for Implementation of GOFC in the Boreal Forest*

R1 – The GOFC PTB need to develop an overall strategy for addressing issues that will constrain the future activities of the GOFC Boreal Forest Network.

-Biome delineation – boreal versus temperate

-National/Regional Initiatives

-Europe and North America



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Objective 6 – Recommendations

R2 – Prior to the initiation of regional workshops, a strategy needs to be developed to inform and engage major stakeholders

- Russian resource management agencies*
- Other boreal forest countries*
- Other organizations interested in the boreal forest → infrastructure support for GOFC*
- Global change science community*



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Objective 6 – Recommendations

R3 – Conduct a series of regional workshops

- Northwestern Russia/Fennoscandia

Spring-Summer of 2001 – St. Petersburg

-Eastern Eurasia

Spring-Summer of 2001 – Irkutsk

-North America???