

# Can Low-Income Countries Develop without their own Scientific Community?

Global development: Science and Policies for the Future  
IIASA Conference Vienna 2007

Berit Olsson  
Director, SAREC

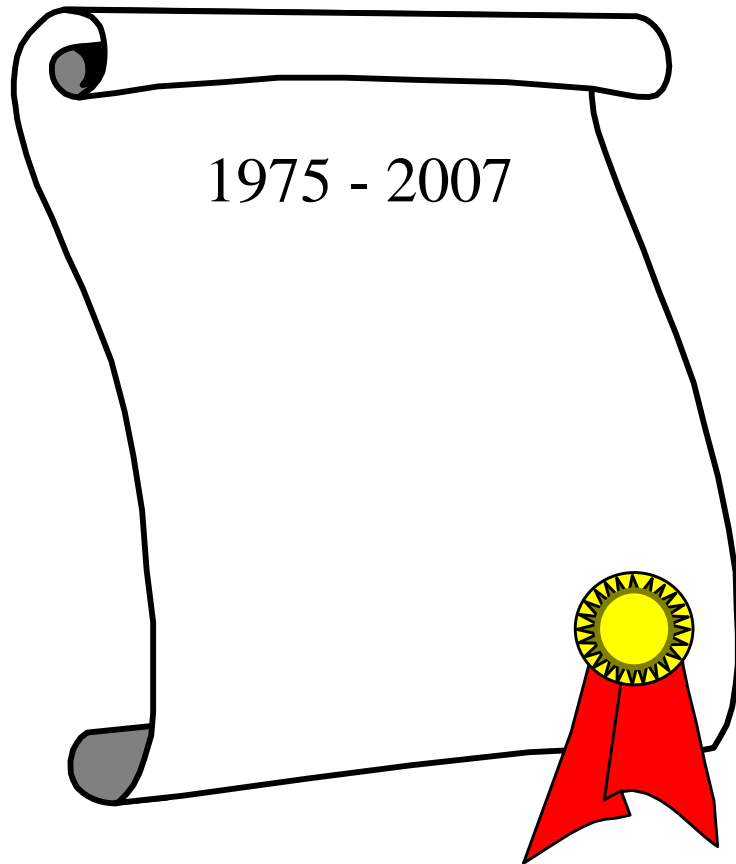


# Goal of Swedish development co-operation:

to help create conditions  
that will enable poor people  
to improve their lives.



# SAREC's mandate



*Assist developing countries in*

- building national research capacity
- supporting their access to relevant research findings

# Regional and International Research Programmes

- Democracy and conflict studies
- Environmental economy
- Drylands
- Coastal zone management
- Genetic resources
- Public Health
- Tropical diseases
- HIV/AIDS
- Biotechnology,
- Environmental technology
- Energy



”Africa has to think herself out of  
her predicaments”



# African realities

- 340 million lack access to safe drinking water
- 500 million lack adequate sanitation
- energy from biomass, causes deforestation and health hazards
- two thirds of arable land affected by degradation
- rapid urbanization: environment problems, social unrest

# Africa risks:

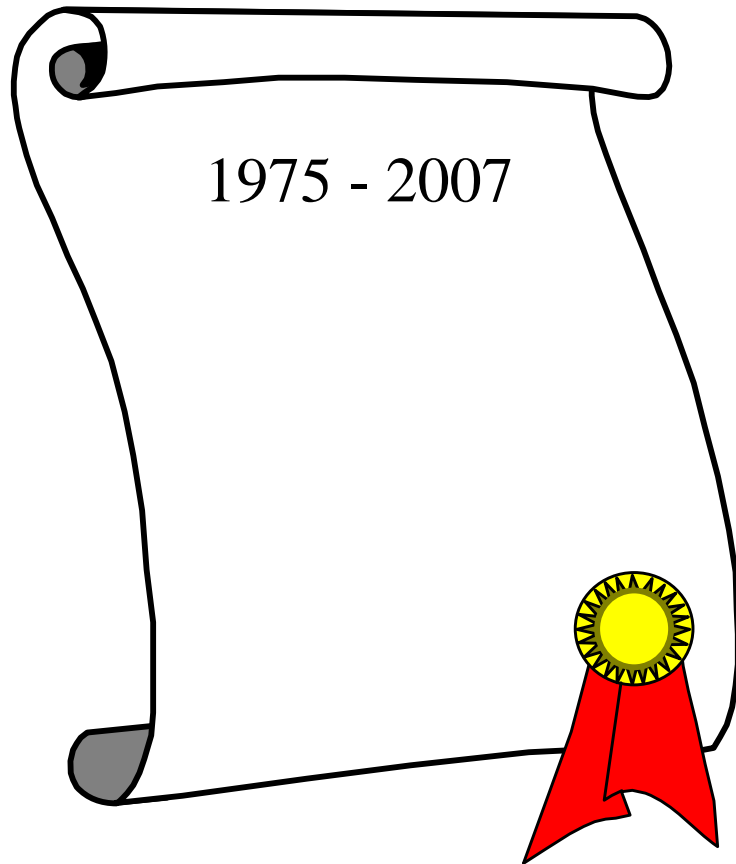
- millions more exposed to water stress  
risk of conflicts
- sea-level rise affects large populations
- health impact, malaria increases
- threats to biodiversity?
- deforestation
- migration
- costs of adaptation and volatility

# African Assets

## **NATURAL RESOURCES**

- Potential for hydropower - only 7% utilized
- Oil, fastest growing sources. Minerals.  
Biomass energy conversion capacity
- Solar potential enormous, geothermal and wind substantial
- Agriculture has potential to improve
- Economic potential of urbanization

# SAREC's mandate



*Assist developing countries in*

- building national research capacity
  - *research in and by low income countries*
- supporting their access to relevant research findings
  - *research on and for development*

# New push for R&D

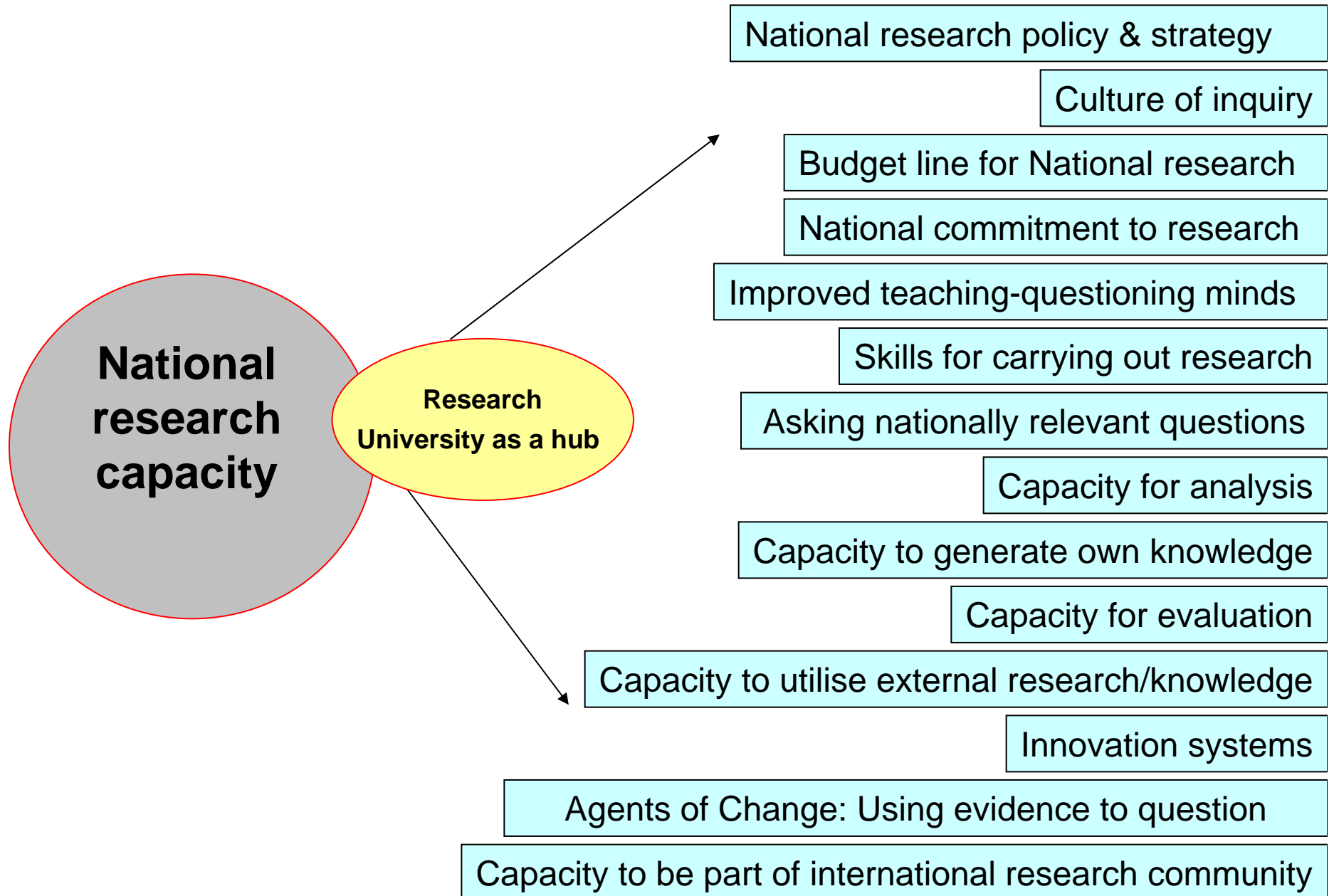
- Can poor countries limit their ambition to using knowledge?
- Is it possible to identify, select and adapt new knowledge without an essential basis for research?

# National Research Capacity

- contact with international research
- local analysis and advice
- relevant research agenda
- critical thinking in higher education
- capacity for research training
- stimulates local industry-innovation system



# National Research capacity



# Research capacity

- Qualified researchers
  - research groups
  - laboratories, libraries, ICT
- Institutions
  - universities, research institutes
  - research training
  - research management
- System
  - S&T Ministries
  - policy, organization, resources
  - Research Councils



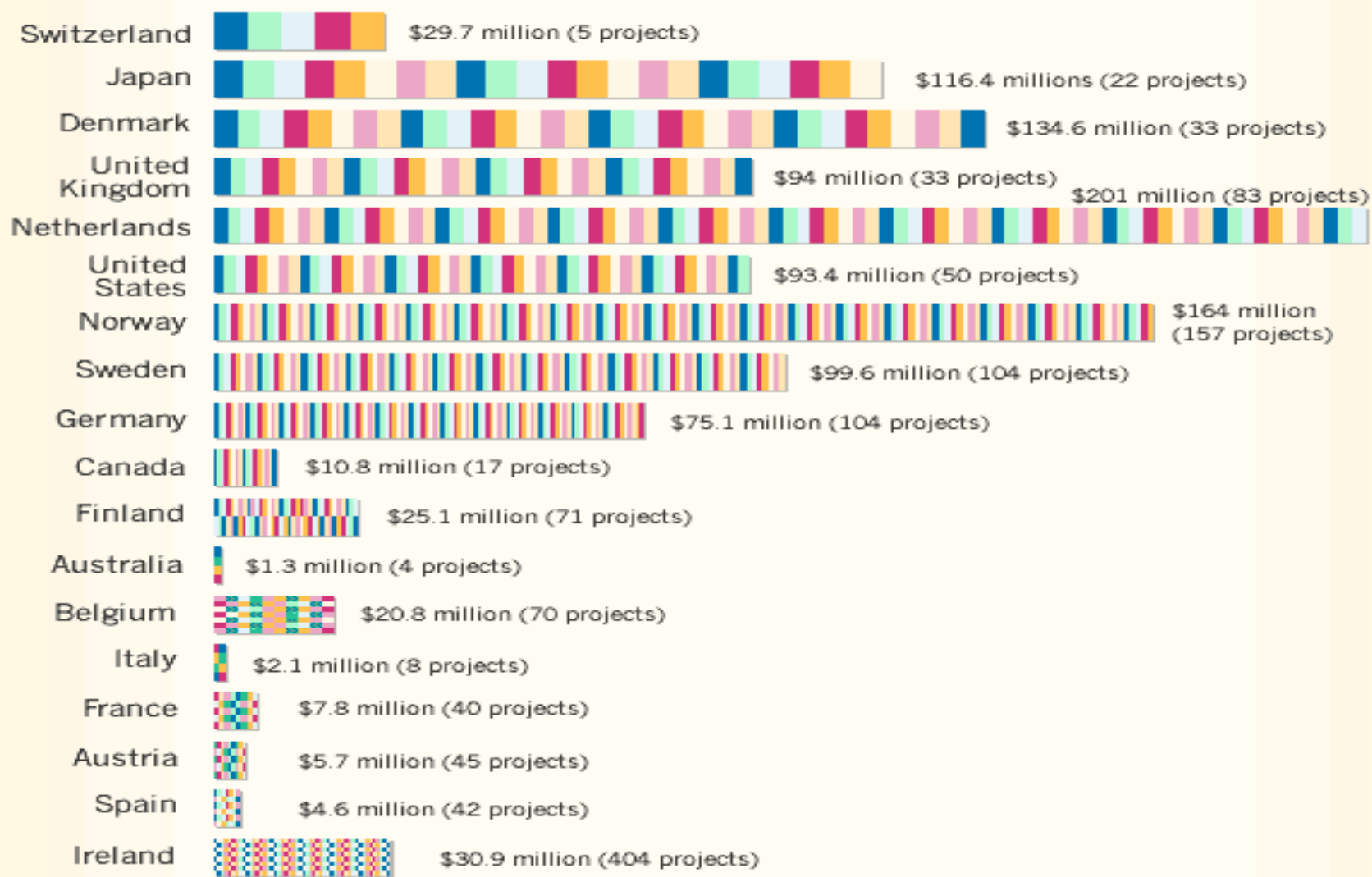
## Trends weakening chances of building a basis for research

- Dilution of resources due to rapid expansion of higher education

# Trends weakening chances of building a basis for research

- Dilution of resources due to rapid expansion of higher education
- Fragmentation of efforts due to
  - application driven project funding
  - problem oriented research cooperation
  - vertical support programmes.

# Bilateral Donor Support to Tanzania, 2000



# National strategies for research

- Guide the organisation for research
- Guide the use of available resources
- Guide dialogue with external partners

# National strategies for research

- Guide the organisation for research
- Guide the use of available resources
- Guide dialogue with external partners
- **Donors** can support a basis for research
- Align their support with plans
- Agree to harmonise reporting requirements



# Research co-operation on global issues

- Interacts with and benefits from research activities at the national level
- Adds situated perspectives

# Research co-operation on global issues

- Interacts with and benefits from research activities at the national level
- Adds situated perspectives
- Depends on partner country having a functioning basis for research –
- Does not automatically contribute to an institutional basis for research

# External research partners may

- Ascertain institutional permit
- Respect conditions & rules
- Seek ethical clearance in both countries

# External research partners may

- Ascertain institutional permit
- Respect conditions & rules
- Seek ethical clearance in both countries
  
- Show collegial solidarity
- Avoid becoming individual “aid “
- **Promote support for a basis for research as part of bilateral development co-operation**

- *“If we are earnest in our ambitions of supporting developing countries, and in regarding them as equal partners, support for the development of their research community is an important ingredient of the Swedish development co-operation”.*

Thank You!



# Which research system?

- Policies/Strategies
- Funding avenues?
- Role of
  - research councils?
  - institutes?
  - academies?
  - universities?
- Different resource levels
- Core vs Competitive?
- Sector vs comprehensive
- Policies for external funding and cooperation?

# UNESCO Forum on Higher Education, Research and Knowledge

## Special Initiative 2007

- Mapping of 52 countries' national research system
- Bibliography on the literature used,
- Template on how to study National Research Systems
- Synthesis report on the results

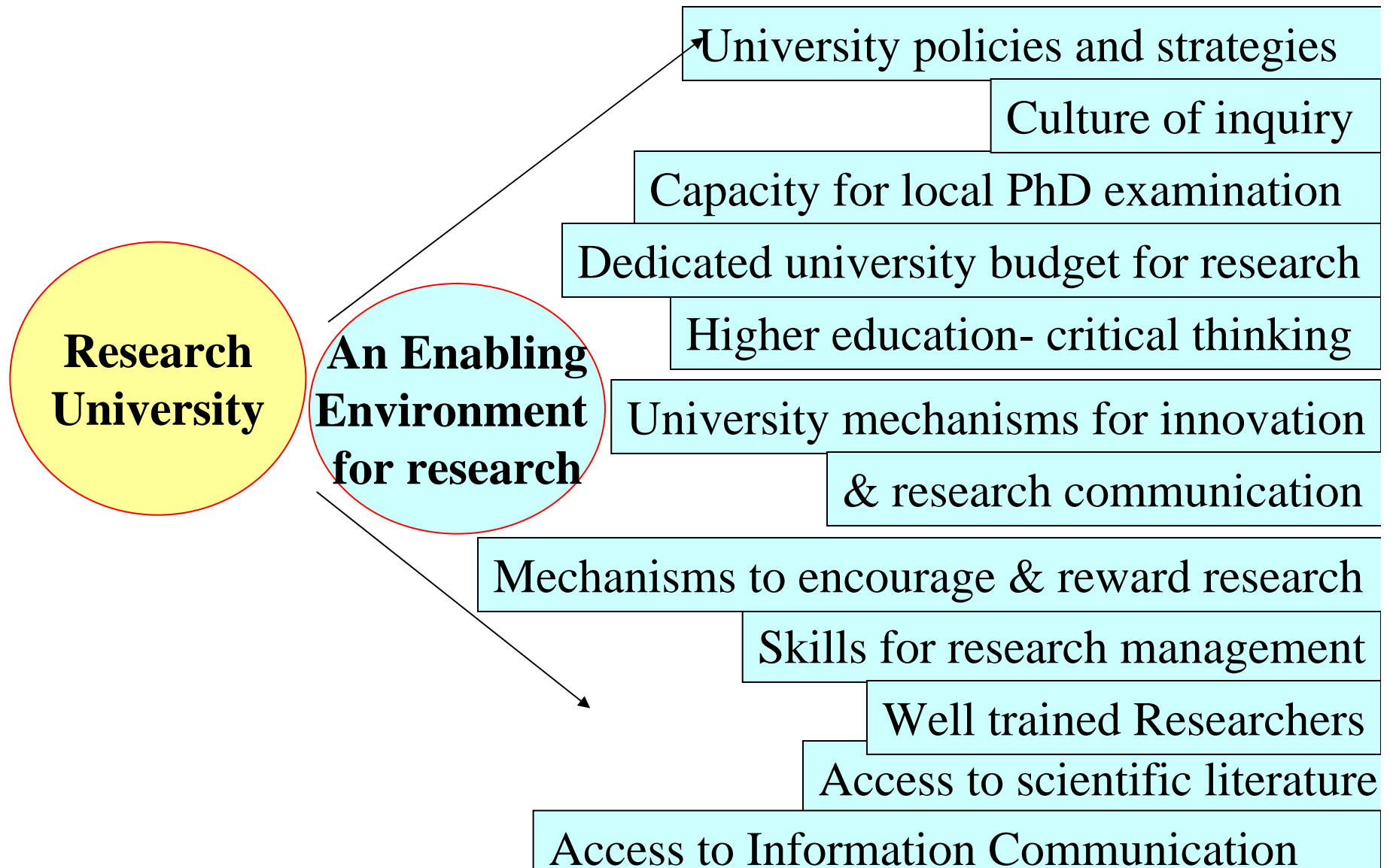


# Goal of development co-operation:

to help create conditions  
that will enable poor people  
to improve their lives.



# University Research capacity



# From donorship to ownership

