Localization Vs Globalization in Research Policy

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Abstract

Research policies worldwide are caught between two forces: globalization – the drive for international collaboration, universal standards, and borderless knowledge flows; and localization – the demand for context-specific relevance, linguistic diversity, and national priorities. This article examines how these forces shape research funding, publication, evaluation, and ethics from 2015–2026. Using case studies from India's NEP 2020 & STIP 2020, Horizon Europe, China's "Double First-Class" initiative, and African Science Granting Councils, we identify four key tensions: 1) Metrics vs. Meaning, 2) English hegemony vs. Multilingual science, 3) IP regimes vs. Indigenous knowledge, 4) Brain circulation vs. Brain drain. We propose a "Glocalized Research Policy Framework" built on subsidiarity, reciprocity, and epistemic justice to help nations contribute to global science without erasing local knowledge systems.

Keywords: Research Policy, Globalization, Localization, NEP 2020, STIP 2020

Introduction

1.1 The Dual Imperative:

Post-COVID, climate crisis, and AI disruption have made research a strategic asset. Nations face pressure to "publish globally or perish" while also ensuring research solves local hunger, health, and livelihood problems. UNESCO's 2021 Recommendation on Open Science calls for global sharing. Simultaneously, India's STIP 2020 calls for "Atmanirbhar Bharat" in S&T. These are not contradictions but design challenges.

1.2 Definition:

Globalization in Research Policy: Alignment with international norms: OECD evaluation criteria, DORA declaration, open data, cross-border grants, English as lingua franca, rankings-driven funding.

Localization in Research Policy: Prioritizing national missions, funding research in regional languages, protecting TK/GR, valuing community-engaged research, using local metrics of impact.

1.3 Research Questions:

1. How do current research policies negotiate localization-globalization tensions?
2. What are the impacts on researchers from the Global South?
3. What policy instruments create synergy rather than trade-off?

Conceptual Framework: From "Either/Or" to "Glocal"

We adapt Robertson's "Glocalization" to research policy. Knowledge is not universal or local; it is "universalized particulars" and "particularized universals."

Table No - 1

Dimension	Globalization Push	Localization Pull	Glocalized Synthesis
Agenda	SDG, Grand Challenges	National Missions,Jal Jeevan	SDG 6 *via* village pond revival"
Language	English-only journals	Hindi/Tamil/Swahili science	Multilingual abstracts + AI translation |
Metrics	H-index, Impact Factor	Societal impact, *Uchhatar Avishkar Yojana* outcomes	DORA + SEP – Societal Engagement Points
Ethics	IRB, GDPR	Community consent, Tribal IRB	Dynamic Consent" + TKDL databases

GLOBAL POLICY TRENDS: CASE STUDIES:

3.1 European Union: "Open Science" with Strategic Autonomy

Horizon Europe 2021–2027: €95.5B. Globalization: Requires Open Access, FAIR data, gender equality plans. Localization: "Widening Participation" fund for Eastern Europe; "Missions" on Cancer, Soil must include local citizen panels. Tension: Ukrainian researchers displaced by war struggle to meet "institutional stability" criteria.

3.2 India: STIP 2020, NEP 2020 and ANRF Act 2023

Globalization: ANRF to fund 36,000 cr for high-impact, globally competitive research; 30% budget for international collaboration. Localization: "One Nation One Subscription" for journals; 20% funding earmarked for state universities; "ASPIRE" mandates research in Indian languages; TKDL integrated into patent search. Tension: NIRF rankings still reward SCOPUS papers, so state colleges chase IF over local water problems.

3.3 China: "Double First-Class" + Belt & Road Science Globalization:

Funds top universities to enter Top 100 globally; massive co-authored papers with US/EU. Localization: "Liangmian Shenfen" – research must serve China first; journals in Chinese get equal promotion points since 2020; social science must align with "Xi Jinping Thought." Result: #1 in Nature Index, but concerns on data sharing.

3.4 Africa: Science Granting Councils Initiative SGCI

Localization: 15 African countries require 50% of funded research to address National Development Plans. Globalization: UKRI, IDRC co-fund, but insist on GCRF standards. Innovation: "Made in Africa Evaluation" – metrics include policy brief uptake, not just papers.

Four Core Tensions in Research Policy:

4.1 Metrics vs. Meaning:

- Global: University rankings use papers/citations/patents. Local: A farmer's climate adaptation may never be a paper but saves 10,000 lives.
- Data: Global South scholars produce 3.7% of papers in top 10% journals but 60% of SDG-relevant fieldwork [UNESCO Science Report 2021].
- Policy response: Norway's "NOR-CAM" and India's "PARAKH" for higher ed now include societal impact narratives.

4.2 English Hegemony vs. Multilingual Science :

- Global: 95% of SCOPUS journals in English. Local: Brazil's SciELO, China's CNKI, India's UGC-CARE List-II promote regional language journals.
- Impact: Non-native English scholars spend 51% more time writing papers [Ramírez-Castañeda 2020]. Yet AI translation in 2026 is closing gaps.
- Policy response: Helsinki Initiative on Multilingualism; DST India funding translation of 100 STEM classics into 22 languages.

4.3 IP Regimes vs. Indigenous Knowledge IKS:

- Global: TRIPS, patents require novelty/disclosure. Local: IK is collective, oral, intergenerational. Turmeric patent case, Neem patent case.
- Policy response: India's TKDL – 450K formulations in 5 languages – prevented 280+ bio-piracy cases. WIPO IGC treaty 2024 now mandates disclosure of IK source. Localization protects; globalization shares after consent.

4.4 Brain Drain vs. Brain Circulation:

- Global: US/UK attract 60% of internationally mobile PhDs. Local: India's "VAIBHAV" and "SPARC" try reverse flow.
- New model: Diaspora not "lost" but "networked." China's "Thousand Talents", India's "Vaishvik Bharatiya Vaigyanik" create part-time returns. Policy must fund networks, not just bodies.

Towards a Glocalized Research Policy Framework:

We propose 3 principles and 5 instruments:

3 Principles are:

1. **Subsidiarity:** Problems should be addressed at the most local level possible, but research support at the most global level necessary.
2. **Reciprocity**: Global North access to Global South data must be matched by capacity building + co-authorship, not extraction.
3. **Epistemic Justice:** Vocal for Local means recognizing tribal medicine, farmer innovation, and Shastras as knowledge, not "anecdote."

5 Policy Instruments:

Table no-2

Instrument	Localization Function	Globalization Function	Example
Tiered Funding	40% for state/ regional missions	40% for global excellence, 20% bridge grants	ANRF India, ERC Synergy
Plural Metrics	Societal Readiness Level SRL, Community use	H-index, patents	Dutch "Room for Everyone's Talent
Language Infrastructure	Regional language journals, *Bhashini* AI translation	English abstract mandate and machine-translate	China CSTPCD and English mirror
Ethical Data Treaty	Community data sovereignty, TKDL	Open Data, but with "CARE" principles	AU-EU Data Gov. Framework
Diaspora Labs	Reverse Brain Drain" chairs in home nation	Joint appointments, remote labs	India's VAJRA, China's Qiming

Implications for Stakeholders:

1. **For Governments:** Don't copy-paste OECD metrics. Adopt "DORA , Local Impact." 1% GDP for R&D means 0.4% for local, 0.6% for global excellence.
2. **For Universities:** Promotion policy: 1 paper in Nature = 1 deep community solution documented in Marathi + open dataset. Both count.
3. **For Funders:** Require "Glocalization Plan" in grants: How will this Alzheimer's drug trial also build Assamese neuroscience vocab?
4. **For Researchers:** Learn "boundary-spanning": write one paper for Lancet, one policy brief for District Collector. Both are research.

Conclusion:

Localization without globalization risks parochialism — reinventing the wheel. Globalization without localization risks irrelevance ,polished wheels for no road. Indian music has jugalbandi: two soloists don't compete; they complete each other. Research policy in 2026 must be a jugalbandi of vishwa and ghar. An IIT scholar's AI model for Sanskrit grammar should be on GitHub and in a Pathshala. A Kenyan study on drought must count for promotion in Nairobi and inform IPCC.

The aim is not to choose between global and local. It is to ensure that a farmer in Vidarbha and a professor at MIT are solving the same climate problem, with equal dignity, and shared credit. That is Vasudhaiva Kutumbakam in research policy.

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