



Chapter 5.11

The Profession of Research Management and Administration in India

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Abstract

Research and innovation are a major national priority in India and are conducted across a diverse group of institutions. While Research Management (RM) activities were previously integrated into researcher and other roles in India, there is now recognition that RM services rendered by professionally trained staff can reduce the administrative burden on researchers, thereby enhancing the ease of doing research. This chapter provides context on the complex higher education and research ecosystem in India, outlines the circumstances leading to the development of RM support at Indian institutions, and highlights the contributions of the India Research Management Initiative in creating a community of practice for RM. The chapter concludes with some projections for the future of RM in India.

Keywords: India; Research Management and Administration; IRMI; India Research Management Initiative; community of practice; network

The Research Ecosystem in India

India is now accepted as a major contributor to knowledge generation in the world. India's research achievements build upon several decades of consistent investments in higher education institutions (HEIs), research, infrastructure, international collaborations, and scientifically trained personnel ([Department of Science and Technology](#),

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2020; National Science Foundation, 2022c). While the current Science Technology and Innovation Policy for India (STIP 2020) sets out the vision of the Government of India (GoI) for Research & Innovation, the new National Education Policy (NEP) stipulates improving education in India to make it inclusive at all levels (Government of India, 2020a, 2020b). Recent UGC guidelines on the creation of Research and Development Cells at Universities offer a framework for boosting research at Universities through strategic inputs and the requisite administrative support (University Grants Commission, 2022). These major national policies and initiatives set the expectations for Research Management and Administration (RMA) at Indian institutions.

The higher education and research system in India is complex and comprises nearly 7,000 entities engaged in research, including central, state, and private universities, autonomous government institutes, medical research units, and NGOs¹ (Government of India, 2021). These varied educational and research institutions have evolved in India over a period of nearly seven decades. Each of these institutions offers unique opportunities for research and requires specific administrative structures. Indian HEIs are increasingly seeking to be recognised through national and international rankings. The National Institutional Ranking Framework (NIRF) approved by the Ministry of Human Resource Development, GoI includes a list of India's top research-performing organisations (*National Institutional Ranking Framework*, n.d.). The National Assessment and Accreditation Council (NAAC) conducts assessment and accreditation of HEIs, to determine academic standards (*National Assessment and Accreditation Council*, n.d.). The requirement for high-quality data for these ranking exercises has made the development of information management systems such as IRINS timely (*Indian Research Information Network System*, n.d.).

The Government of India continues to be the major funder of research in India. Additional contributions are made through philanthropy, business enterprises, HEIs, private non-profit organisations, international funders, and others. India's Gross expenditure on Research & Development (GERD) as a percentage of GDP has remained at less than 0.7% in recent years. Increasing the GERD to 2% of GDP has been a national goal, and it has been suggested that this target could be achieved if the private sector were to increase its contribution (Department of Science and Technology, 2020; National Science Foundation, 2022c; PRS Legislative Research, 2022).

Researchers across India raise external funding for research from several sources. Some prominent GoI funding agencies and partnerships supporting R&I projects include the DST,² DBT, ICMR, ICSSR, DBT/Wellcome Trust India Alliance, and

¹ India has 54 central universities, 444 state universities, 403 private universities, and 126 'Deemed-to-be-Universities', recognised by the University Grants Commission (UGC). Furthermore, there are 132 Institutes of National Importance in India, including the 23 Indian Institutes of Technology (IITs), 20 Indian Institutes of Management (IIMs), and the 7 Indian Institutes of Science Education and Research (IISERs). India has several GoI-funded research-intensive autonomous institutions including the 16 Autonomous Institutions of the Department of Biotechnology (DBT), 20 Autonomous Science & Technology Institutions of the Department of Science and Technology (DST), 31 institutions of the Indian Council for Medical Research (ICMR), and the 38 laboratories of the Council of Scientific & Industrial Research (CSIR).

² Some major research funders for India include the Department of Science and Technology (<https://dst.gov.in/>), Department of Biotechnology (<https://dbtindia.gov.in/>), Indian Council of Medical Research (<https://www.icmr.gov.in/>), Indian Council of Social Science Research (<https://icssr.org/>), Biotechnology Industry Research Assistance Council (<https://www.birac.nic.in/>), Human Frontiers Science Program (<https://www.hfsp.org/>), and European Molecular Biology Organization (<https://www.embo.org/>).

BIRAC. India is a member of the HFSP and an Associate Member of EMBO, enabling access for Indian researchers. There are other funding and collaboration opportunities available via international sources, as well. Philanthropy plays an important role in supporting research in India, with notable research funders including the Bill and Melinda Gates Foundation and Tata Trusts. Navigating these diverse funding systems successfully requires commensurate research management (RM) support at Indian research institutions.

Evolution of the Profession in India

While some Indian institutions such as the IITs, CSIR laboratories, and select research institutions have developed key research support services over a sustained period^{3, 4} there are still large gaps in research support services (Ayyar & Jameel, 2019; Mehta & Puri, 2022; Nukala et al., 2020). In the recent decade, several new research offices have been added at Indian institutions, driven in part by the growth of life sciences research. This period has additionally witnessed the development of national guidelines and administrative support for the ethical conduct of life sciences research (Jotwani, 2017). Since 2018, the DBT/Wellcome Trust India Alliance has led the development of the India Research Management Initiative (IRMI), aimed at RM role creation, capacity building and nurturing a community of practice for RMAs (*India Research Management Initiative (IRMI)*, n.d.).

The Indian RMA Community

IRMI is a focal point for the Indian RMA community, supporting RMAs through webinars, a conference series and networking sessions (Gottipatti, 2022). A collaboration between IRMI and NCURA Magazine has resulted in a series of blogs on RM in India through 2020–2022 (Bagani, 2022; Baral, 2021; Dutta, 2020; Gottipatti, 2020; Krishnamoorthy, 2021; Pillai & Raghavan, 2021). These blogs are among the first published accounts of RM support at Indian institutions.

In parallel, IRMI has facilitated interactions between RMAs in India with their global peers, by providing funding support for attendance at international conferences. Indian RMAs participated in INORMS 2018 and 2021 (Ayyar, 2021a, 2021b), NCURA Annual Conference 2020, SARIMA Annual Conferences 2020 and 2021, VICRA Conference 2022 and EARMA Conference 2022. Indian RMAs participated in the global RAAAP-2 and RAAAP-3 surveys, facilitated through the IRMI initiative.

The NCURA and INORMS experiences motivated the curation of the first edition of the IRMI Annual Conference in 2021. A dedicated Conference Planning Committee was created to guide the event; a first for Indian RMAs to work together towards a national project (Joshi, 2021). The Conference provided much-needed visibility for RM in India and has led to the launch of a call for the second edition.

³The IITs were among the first HEIs in India to create research support units. In 1971, IIT Kanpur set up an Office of Research and Development (DORD) within the IIT system. This system has extended across the IITs, with similar research offices being set up at other IITs.

⁴In 2010, the National Centre for Biological Sciences (NCBS) created a Research Development Office to support the growth of the institution. Within a short span, several other biomedical research institutions including the Translational Health Science and Technology Institute (THSTI) in Faridabad and the Indian Institute of Science Education and Research (IISER) in Pune set up their research offices.

Indian RMA Demographics

A key goal of the IRMI initiative is the building of a community of practice for RMAs in India. The existence of the initiative has encouraged individuals in RMA roles such as partnership building, pre- and post-award services, and statutory compliance management to come forward to join an evolving group. While there is significant variation in the job titles for RMAs in India, there are now several individuals in the IRMI network with job titles such as Grant Adviser, Grants Administrator, Grant Manager, Research Manager, Program Manager, Research Management Consultant, Head, Grants Management and Director, Research and Development. The IRMI community has been created to be distinct from other groupings in India for practitioners of science communication and public engagement and innovation management. IRMI awardees are part of the IRMI network.

Demographics for IRMI network members, based on data available publicly on the LinkedIn platform in 2022, was analysed [Fig. 5.11.1(a)–(d)]. These analyses provide an indication of current trends for the group. As of April 2022, IRMI network members are employed at a diverse set of institutions. The single largest grouping (47%) of RMAs currently work at research institutions supported by the Government of India, such as autonomous institutions of the DAE, DBT, MHRD, and CSIR [Fig. 5.11.1(a)]. 70% of the IRMI network are from the Life Sciences [Fig. 5.11.1(b)]. A few members of the network have MBA qualifications in addition to their core degrees from science or public health research. 75% of the network members hold a PhD degree, while 24% are trained to the Masters level. This high degree of educational training for RMAs in the IRMI network reflects the fact that in India, RMA is viewed as a science-related career [Fig. 5.11.1(c)]. Finally, in keeping with global trends, a large proportion (64%) of IRMI RMAs are female [Fig. 5.11.1(d)]. These insights correlate well with similar conclusions drawn from responses from Indian RMAs for the RAAAP-3 survey, particularly with respect to trends in the gender of RMAs in India and their background specialisations (Kerridge, Dutta, et al., 2022).

During the IRMI pilot in 2018, the author interacted with a set of RMAs primarily across cities such as Bengaluru, New Delhi, Pune, and Hyderabad [Fig. 5.11.2(a)]. The intervening years have seen a clear change in the numbers and distribution of RMAs associated with the IRMI initiative [Fig. 5.11.2(b)]. While Bengaluru and the Northern Capital Region (including New Delhi, Faridabad, Sonapat, and Noida) continue to contribute the largest numbers of RMAs in the network, there are newer members based at other locations in India [Fig. 5.11.2(b)]. At an institutional level, the new members of the IRMI network include colleagues based at private and other universities, which was not the case in 2019. This group includes both full-time RMAs and researchers who spend a part of their time on RM activities. The expansion of the IRMI network reflects both the creation of new research offices (in part through the IRMI awards) and increasing numbers of individuals joining the network (*India Research Management Initiative (IRMI)*, n.d.).

The Future of RM in India

RM is an evolving profession in India and can grow further through the following interventions:

1. **Sustainability of research offices and careers:** A significant proportion of Indian RMAs are currently recruited on fixed-term contracts, which poses a risk to RMA careers and to employing institutions. New national policies are required to enable the recruitment and promotion of RMAs.

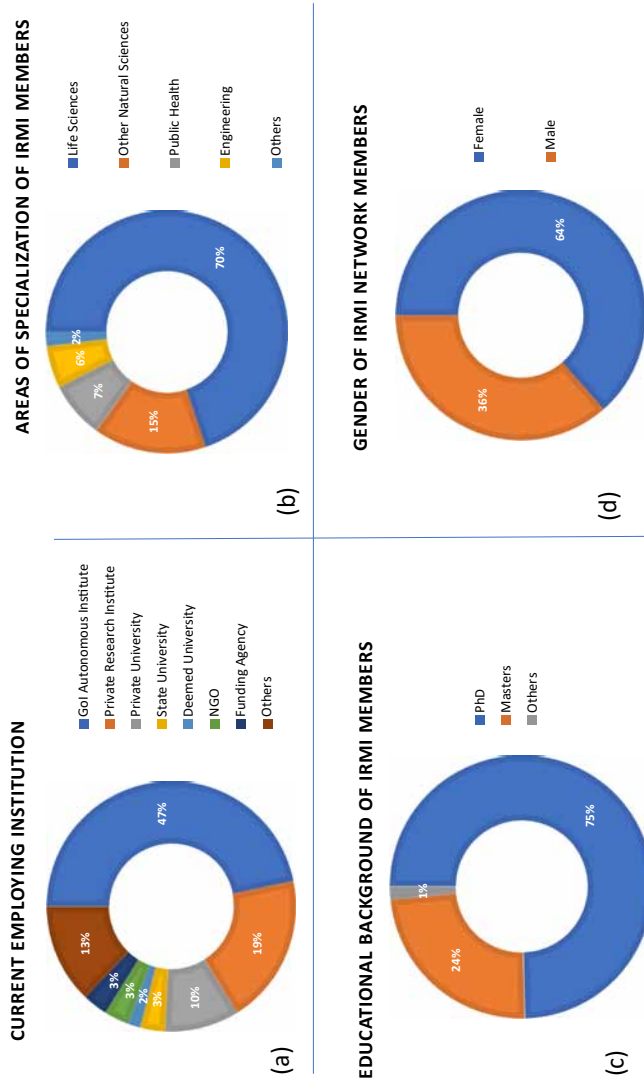


Fig. 5.11.1. Demographics of Members of the IRMI Network (Data Courtesy India Alliance).
 (a) Current employing institution for RMA in the IRMI network (assignments based on data on IRMI network members available publicly via the LinkedIn platform, $n = 62$). Inclusions: Govt institutions of DAE, DBT, MHRD, DST, CSIR; Other institutions: Include self-employed, industry and Indian missions of international organisations.
 (b) Area of specialisation of RMA in the IRMI network (assignments based on data on IRMI network members available publicly via the LinkedIn platform, $n = 53$).
 (c) Educational status of RMA in the IRMI network (assignments based on data on IRMI network members available publicly via the LinkedIn platform, $n = 63$).
 (d) Gender distribution of RMA in the IRMI network (assignment of male and female based on names of individuals, $n = 85$).

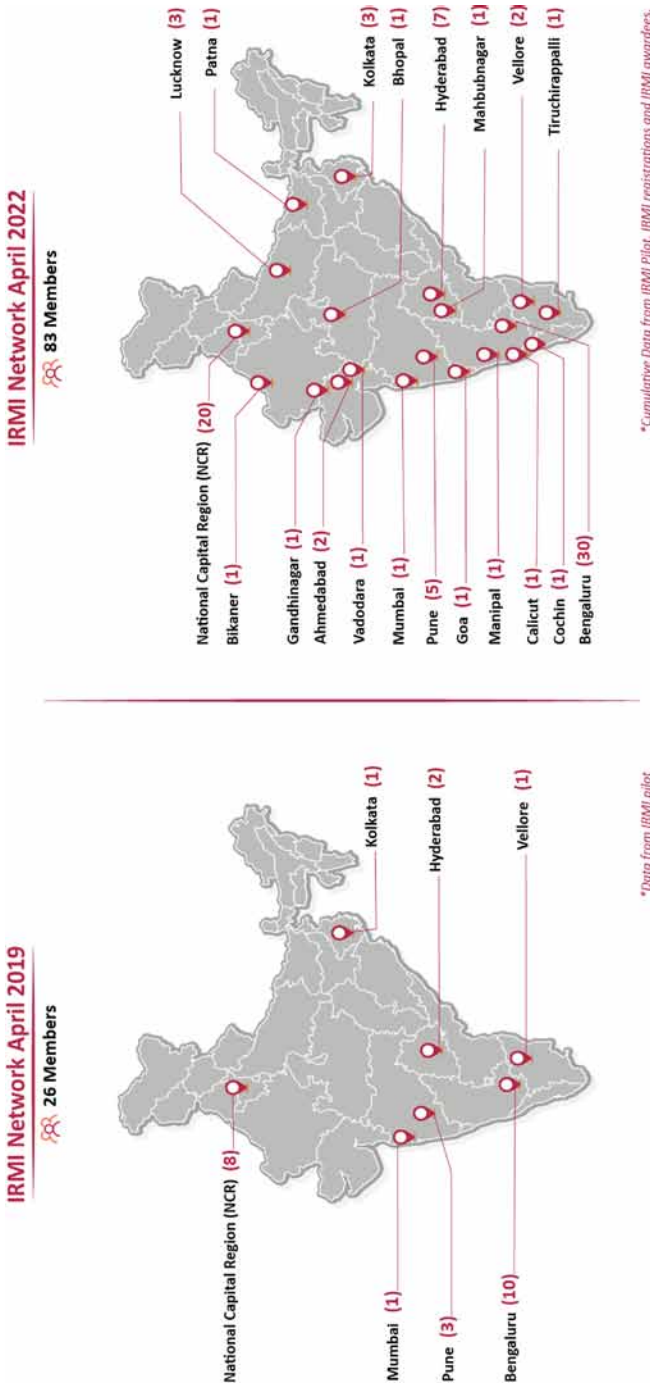


Fig. 5.11.2. Expansion of the IRMI Network (Data Courtesy India Alliance). IRMI network members in roles relating to partnership building, pre- and post-award grant management, program management, research evaluation, statutory compliance management, international activities, development and RM leadership are included.

(a) Data from IRMI Pilot Phase Concluding April 2019.

(b) Cumulative Data from IRMI Pilot, IRMI Registrations, and IRMI Awardees, as of April 2022.

2. **Training programs for RM:** Research offices at Indian institutions require staff with appropriate professional backgrounds. In-country training opportunities such as internships and certification courses recognised by employers are a clear way forward to enable this.

Summary

R&I at Indian HEIs requires dedicated RM support for maximum impact. The process of developing RM as a professional support service has begun in India, through concerted action from multiple stakeholders. Several initiatives over the last decade have raised awareness of RM as a profession in India. However, a persistent challenge has been the actual shortage of RM roles. This situation is evolving and there are now increasing instances of motivated individuals gaining fixed-term employment in RM roles at institutions. While this process continues, the next challenge would be for intuitions to create longer-term employment opportunities for Indian RMAs. In parallel, these RMAs would need to be supported through appropriate training and a community of practice that are aligned with the policy and funding landscape in India. These early steps are necessary for paving the way for RM to become a sustainable profession in India.

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