



Good Practice Notes



CAPACITY DEVELOPMENT OF IN-SERVICE EXTENSION PROFESSIONALS THROUGH DISTANCE LEARNING IN INDIA

5 Key Points

1. Context

- Farmers need support to deal with new challenges in agriculture
- Approximately 100,000 extension personnel in India in the public sector
- Limited knowledge on advanced extension methods

2. Objective

The Post Graduate Diploma in Agricultural Extension Management (PGDAEM) aims to transform public extension functionaries into a professional cadre of Farm Advisors.

3. Methodology

- Capacity development of in-service extension professionals through a distance learning mode
- PGDAEM-MOOCs using the MOOCs platform

4. Results - Highlights

- This is a unique initiative for capacity development
- Cost effective and innovative approach
- Covered almost 18% of extension personnel in the Indian public sector
- Programme replicated in other countries

5. Recommendation - Highlight

Strengthen this initiative and try to replicate it across countries and regions in different forms

Introduction

MANAGE, established in 1987, is an apex level autonomous institute in India involved in capacity development of extension professionals. It is an organization of the Ministry of Agriculture and Farmers Welfare (MoA&FW), Government of India (GoI). It offers services in training, consultancy, management education, research and information services.

It launched the Post Graduate Diploma in Agricultural Extension Management (PGDAEM) during the academic year 2007-08, especially for public extension functionaries, in the distance learning mode. MoA&FW, GoI had fully sponsored the programme since its inception up to Financial Year (FY) 2014-15. With effect from FY 2015-16, GoI support for PGDAEM is to the tune of 60%, 90%, and 100% for general states, North-Eastern & three Himalayan states, and Union Territories (UTs), respectively.

Currently the 11th batch is pursuing PGDAEM. So far, 18,512 candidates have enrolled for PGDAEM, of which 12,181 candidates have completed the course (Figure 1.)

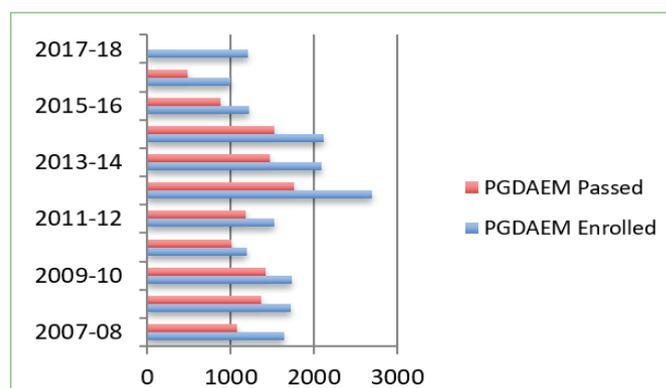


Figure 1: PGDAEM Enrollment Status
(Source: PGDAEM Cell, 10 July 2018)

In order to increase its reach and cover a larger number of candidates, MANAGE has launched an online PGDAEM program called PGDAEM-MOOCs in 2017 using Massive Open Online Courses (MOOCs), an online e-learning platform.

The fourth batch of PGDAEM-MOOCs is starting this year (November 2018). This MOOCs course is accessed not only by Indian nationals, but also by professionals from African countries (Uganda, Botswana, Liberia, Rwanda and Kenya) and Vietnam. MANAGE is also conducting PGDAEM for extension personnel from Afghanistan in collaboration with the Ministry of Agriculture, Irrigation and Livestock (MAIL), Islamic Republic of Afghanistan. PGDAEM (Afghanistan) has reached more than 60 candidates. Across three batches 273 candidates have registered for the online PGDAEM-MOOCs.

Target Audience

PGDAEM is open to all extension functionaries who are graduates in agriculture and allied fields, such as horticulture, veterinary, fisheries, etc., and are presently employed by the State, Central and UT governments, State Agricultural Universities (SAUs), Krishi Vigyan Kendras (KVKs), Agricultural Technology Management Agency (ATMA), and more. Such candidates can get sponsorship from the government. A maximum of 25 candidates can be sponsored from a district. Graduates who are working in agri-business companies, seed corporations, non government organisations (NGOs), co-operatives, farmers' organisations, agripreneurs, and input dealers can apply directly to MANAGE after payment of INR 15,000 (USD 220) as course fees. The PGDAEM-MOOCs costs USD 220 for foreign nationals and INR 7,500 (USD 110) for Indians.

Methodology

Content: The course is designed in such a way that it covers 32 credits spread over two semesters (see Table 1).

Table 1: Outline of the PGDAEM course

Semester I (14 credits)	Semester II (18 credits)
Introduction to Agriculture Extension Management (4)	Market-Led Extension (4)
Communication of Agricultural Innovations (3)	Agri-Business and Entrepreneurship Development (3)
Principles and Practices of Extension Management (3)	Project Management in Agricultural Extension (2)
Participatory Approaches in Agricultural Extension (2)	Information and Communication Technology in Agriculture (3)
Research Methods in Agricultural Extension (2)	Sustainable Livelihood in Agriculture (3)
	Project Work (3)

Approach: Each credit course is supported with printed reading material (bilingual: in English and Hindi), e-learning

Rationale and Objectives

Agriculture is transforming globally and farmers' needs for support and services are changing rapidly. Extension personnel need to support farmers in dealing with these changes, and to do so they need new and enhanced capacities. In India, the public extension system continues to play a pivotal role. There are approximately 100,000 extension personnel in India working at district and block levels in agriculture and allied sectors. The PGDAEM was launched by MANAGE primarily to enhance the capacity of in-service agricultural extension functionaries in order to bridge this ever-growing gap in knowledge. It aims to enhance/supplement the capacities of the extension professionals on advanced extension methods, tools and approaches. The objectives of the course have been articulated in Figure 2.

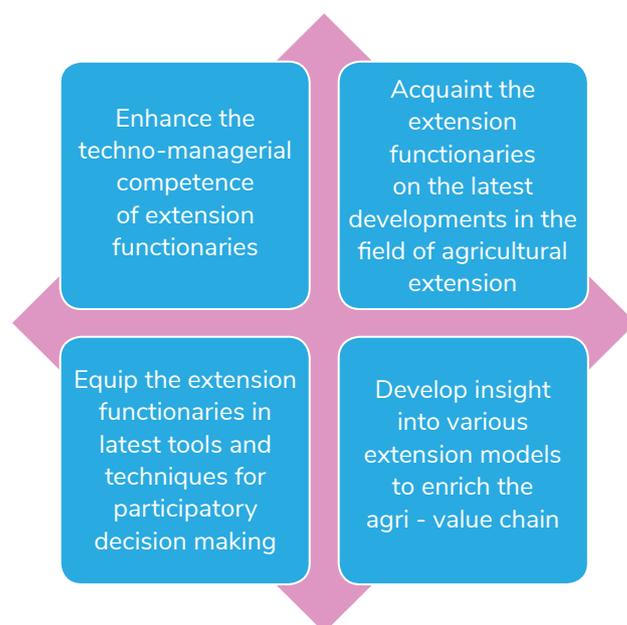


Figure 2: Objectives of PGDAEM

resources (in the form of pre-recorded DVD modules) and lecture series in combination with contact classes. Contact classes are held at State Agricultural Management & Extension Training Institutes (SAMETIs) in respective states for five days in each semester, well in advance of the written examinations. Candidates are eligible to commence project work once they have successfully completed the first semester. Candidates are evaluated on their performance in the written examinations and assignments, which are for 70 marks and 30 marks, respectively. A combined minimum of 50 marks is mandatory in each subject to qualify, besides obtaining at least 50 marks in project work after successful submission of the project report. PGDAEM has developed learning resources (35 hours of relevant video content and 2442 pages of open source material) that are accessed by candidates for completing the programme.

Curricula Development: While developing the course content, all MANAGE faculties were put in charge of liaising with experts/peer reviews/refinement on a particular credit course of PGDAEM, based on the guidelines. It was also ensured that the curricula covering different extension methods was participatory and gender inclusive.

Project work: Project work in PGDAEM is meant to provide an opportunity to candidates to field test the learning gained from the extension management skill they have learnt from the PGDAEM programme. Accordingly, candidates are advised to choose a topic from (a) technologies related to respective departments; or (b) government schemes; or (c) extension management approaches/skills for the project work that has to be planned as a field activity, which the candidate has to implement in his/her own jurisdiction and report on the work done at the field level with the farmers/stakeholders and its utility to the farming community. PGDAEM has collected and reviewed over a hundred project reports of candidates – subsequent to revision of guidelines – as part of documentation of the programme impact at field level; and abstracts of the outstanding project reports are being compiled for publication.

Costs: Efforts were taken to make the course cost effective for those who opt for it (hence, the distance mode). Cost per candidate has been calculated at INR 7,500 (USD 110) for MANAGE; and for SAMETIs at INR 7,500 (USD 110). While the former is the nodal agency for conducting the PGDAEM, the latter are implementing agencies/partners at the state level. Candidates working in agribusiness companies, NGOs, cooperatives, agripreneurs, input dealers, and other private sector employees have to make a payment of INR 15,000 (USD 220) towards course fee in one

installment. This cost is indicative of the operational costs of conducting/managing this course. Many of the costs incurred (curricula development is one such example) have not been attributed. Nominal honorariums were paid to experts and resource persons involved in course curricula design.

Partners/Stakeholders: MANAGE is the key nodal agency for the co-ordination and administration of the course. SAMETIs are the implementing agency of the course at the state level. Department of Agriculture and Cooperation, MoA&FW, GoI, sponsors PGDAEM to some extent. Part of the funding also comes from the respective states based on enrollments. A core committee is formed for approving and screening/vetting the content and the resource persons who would conduct the contact classes. This committee is comprised of renowned experts from the extension discipline. Feedback is also obtained from different trainees attending MANAGE trainings from time to time. SAMETIs have a panel of resource persons/experts who are well-versed in management, extension and other relevant disciplines and they conduct contact classes and evaluate answer sheets, assignments, and project reports. Additionally, MANAGE has identified resource persons for setting up of question papers and evaluation of answer sheets. Resource persons/local experts assist SAMETIs for conducting contact classes/evaluating assignments at the state/cluster level.

Figure 3 illustrates the step-by-step approach/process flowchart that enables co-ordination and benchmarking of milestones during the duration of the course.

Key Findings

MANAGE has used some very innovative approaches for conducting PGDAEM. These include:

- **Language:** The course content in India is currently bilingual (both in English and Hindi). PGDAEM candidates from Afghanistan can complete their assignments in local languages (which is diverse across various tribes and regions) and the written examination comprises of both objective and subjective type questions.
- **Decentralized Examination Centres in each state:** The SAMETIs at the state level are in charge of contact classes and evaluation of the programme. Pre-identified local experts evaluate the assignments. Assignments and written examinations are designed in such a manner that candidates can apply their knowledge or refer to their field experience while answering questions.
- **Use of ICTs:** The programme uses Website/ Online information to display, communicate and

examination, question bank, examination schedule, marks memo and results. The website has provision for submitting feedback by candidates using their unique IDs. In PGDAEM-MOOCs there is an additional feature for interacting with other candidates and experts such as forums, chat, etc.

- **Curriculum revision:** After initiation of the programme, the curriculum was last revised in 2013. It addressed some of the issues, but it didn't make radical changes. Guidelines for project work and submission of project report was revised. The curriculum is revised every 5 years. The next curriculum revision is due, and is in the process of revision.

Monitoring, Evaluation and Learning

MANAGE has an elaborate database on the performance of candidates registered for PGDAEM, which it uses for monitoring and evaluation of the programme. In 2013-2014, it was observed that there was a high dropout rate from previous batches. A rigorous follow-up exercise was undertaken to contact all the dropped-out candidates from the previous batches as well as to motivate them for course completion. For subsequent batches, measures were put in place to have frequent contact not only with candidates but their supervisors as well in order to resolve workplace issues, in case it is affecting their course completion. A special budget was allocated and a special examination was conducted to clear the backlog.

Attempts were made by the PGDAEM cell, MANAGE, during 2013 and 2014 to contact all the absentees and backlog candidates who had been enrolled in PGDAEM earlier – through phone calls and emails to understand their concerns, followed by measures to address a few. The guidelines for project work were revised, based on recommendations of a national level workshop by MANAGE (in which 18 SAMETIs participated) to examine the importance and modalities for integrating technical content into the PGDAEM through project work. Accordingly, mandatory fieldwork is included in project work, in order to provide an opportunity to the candidate to field test the learning related to extension management skill that he/she has acquired from PGDAEM.

Enrolment of candidates from the allied sectors (fisheries & animal husbandry) being currently 14% (167 out of the total 1215) there is a demand to include more case studies from allied sectors in the curricula. MANAGE plans to address this demand in the 2018 curriculum revision.

Challenges

Extension, by its very nature, is dynamic and requires a dynamic curriculum. The quest for the perfect curriculum that can adequately develop requisite capacities in extension professionals is still on. Being a distance learning initiative, PGDAEM suffers from the limitations of being quite linear in delivery. Nevertheless, constant feedback is collected from candidates undergoing the course, and processes are in place for upgrading the curricula once in five years.

Though PGDAEM is able to attract a good number of candidates every year, it has touched only about 20% of eligible candidates in the public sector. Enrollment was affected to a large extent despite the states' commitment to capacity development of its extension staff due to the changed funding pattern w.e.f. FY 2015-16, that limited GoI funding to 90%/60% requiring 10%/40% contribution from the states for the programme. In some of the smaller states and UTs, especially when the number of candidates is quite less (sometimes as less as two), even though conducting the programme has become economically unviable, funds are either met by the concerned states through other resources or the enrolment is restricted to alternate years. However, the launch of the online PGDAEM-MOOCs is designed to overcome these flaws in the PGDAEM. The programme has not attracted many candidates from the private and NGO sector; only 2% of the registered candidates are from these sectors. The reason for there being fewer candidates from private sectors is yet to be ascertained.

While the programme has benefitted the participants by providing better and up-to-date knowledge on extension management, acquisition of this additional qualification has been considered during promotions or for additional pay in only a few states. One good example comes from the Animal Husbandry Department in the states of Andhra Pradesh/Telangana that offer one additional increment in the basic pay of their functionaries if they successfully complete PGDAEM. Some of the SAUs and KVKs have also started giving weightage/points to PGDAEM during recruitment of faculty personnel and in assessment for career advancement.

Impact

According to the feedback collected from the candidates of six batches (2009-2015) by PGDAEM cell (through phone calls and emails to candidates) and from the online feedback report, it was found that they felt the course was useful for learning/gaining:

- Updated knowledge on extension systems and methods;

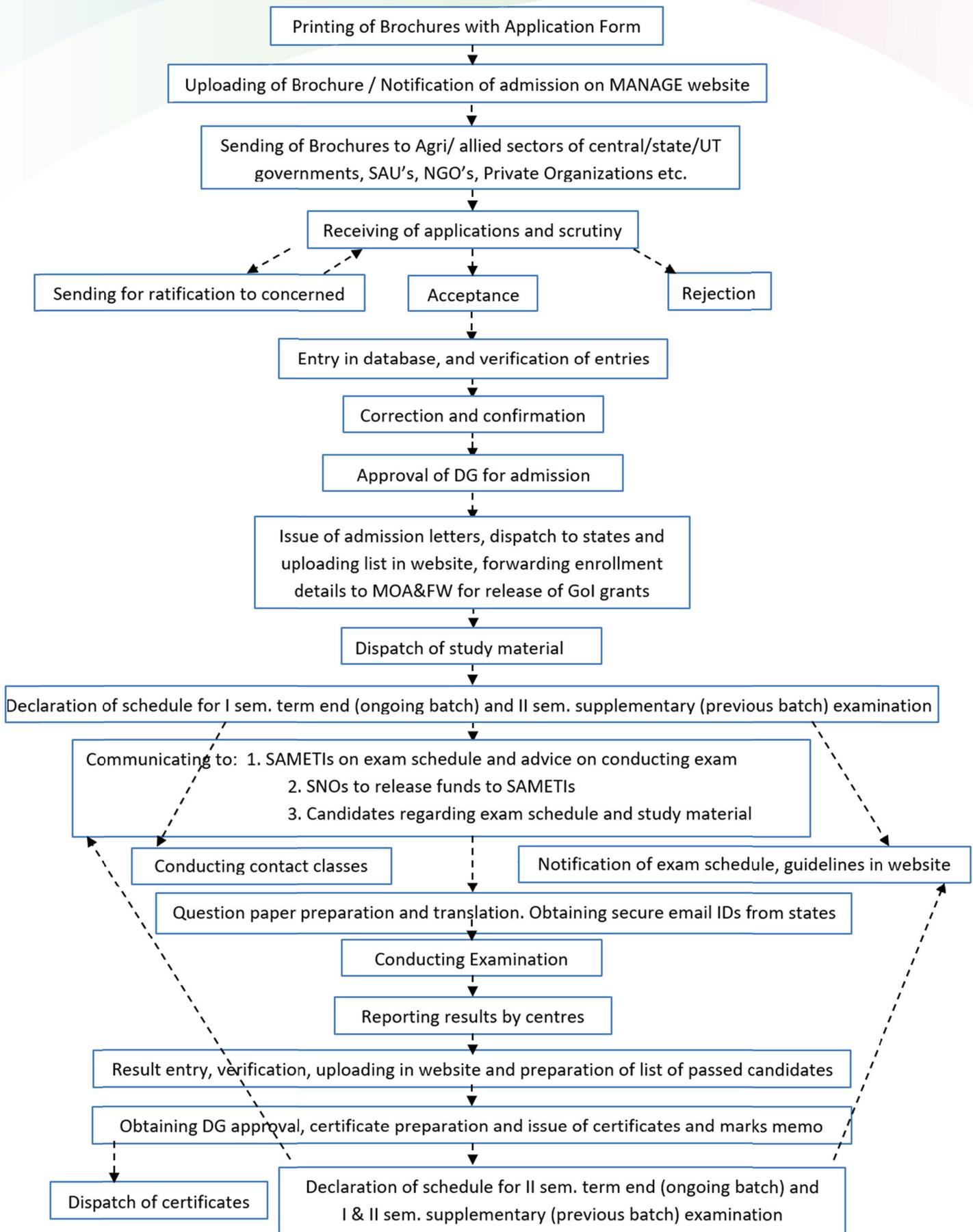


Figure 3: Process Flowchart for Coordination of PGDAEM

share information on admission list, admission letters, assignment topics, project report topics, bilingual study material, videos by experts on all courses, guidelines for contact classes, assignments, project work and term-end

- Various communication skills, especially writing skills;
- Participatory methods for enabling farmer interaction;
- Knowledge on project management;
- The importance of teamwork for effective implementation of extension activities at the ground level;
- Insights into the market-led extension helped them guide farmers to better plan their produce keeping market demand at the forefront of planning.

Success Factors

Institutional Strength: The major factor that has led to the success of this programme is the institution behind this programme – MANAGE. PGDAEM is strengthened by its experienced faculty, a dedicated PGDAEM cell, adequate database, linkages of MANAGE with governments (international, national, state, provincial) and industry, and a panel/pool of experts at hand. No other institution in this region offers such a programme on extension management. The government (Central and State) sponsors PGDAEM (grants allocated for this programme) for the public sector extension functionaries of agriculture and allied sectors.

Sustainability: MANAGE has the mandate, infrastructure, human resources, and the government support to coordinate this programme. Learnings and

linkages from its various initiatives is naturally fed into this PGDAEM. This kind of institution is essential for sustaining an initiative similar to this.

Replicability and Upscaling: PGDAEM has reached 18,161 candidates from across India; online PGDAEM-MOOCs is catering to candidates from other countries in addition to India. This was possible only due to close linkages of MANAGE with the respective governments and embassies. Meticulous planning and a quicker, continuous updating of curricula and facilities such as virtual classrooms, adequate Internet bandwidth (for online courses) are necessary for replicating/upscaling this model.

Conclusion and Recommendations

Extension and advisory service (EAS) providers worldwide do need new capacities to support farmers to deal with the dynamic changes that are happening currently. Distance learning is perhaps the only way to enhance capacity of the large number of EAS providers. The experience of MANAGE in implementing the PGDAEM programme for over a decade offers several lessons for organizing similar programmes in other countries in the Asia-Pacific Region. There should be concentrated efforts to strengthen this initiative as well as to replicate it across countries and regions in different forms to suit their specific/local requirements.

“ As the course profusely uses case studies and the written examination is also quite practical-oriented, candidates find it useful and are able to analyze and apply this knowledge. However, there is further need to add more case studies to the content, and if possible add more contact classes as candidates like attending classes.

– Dr. Harmeet Kaur, Deputy Director (Business Management) SAMETI, Punjab, Resource person for Punjab ”

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