

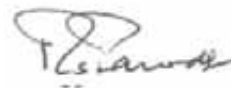
REPORT OF THE ARS REVIEW COMMITTEE

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Acknowledgement

I, on behalf of the Committee to review the Agricultural Research Service (ARS), would like to take this opportunity to thank Hon'ble Shri Sharad Pawar, Union Minister of Agriculture and Food Processing Industries for instituting this Committee. We sincerely thank Dr. S. Ayyappan, Secretary, DARE and Director General, ICAR who provided wise insight on various issues concerning required improvements in the existing ARS system, which came into being in 1975. We also thank all Deputy Directors General and other senior officers for their overwhelming support and cooperation during the process of this review. As Chairman of the Committee, I would especially place on record my sincere appreciation for Dr. C.D. Mayee, Chairman, ASRB for his active involvement and valuable guidance all through and for drafting the recommendations. All Committee members had made strenuous efforts in drawing a conceptual framework that formed the basis of our discussions and wide consultations with the experts in various disciplines. Details provided by Dr. Arvind Kumar, DDG (Education) concerning post-graduate education in agriculture and allied sciences had helped the committee in conceptualizing its recommendations. The committee also acknowledges the help of Shri K.K. Bajpai, former ADG (Admn. & Coordination), ICAR in defining qualifications for direct selections and thank Shri J. Ravi, Director (Personnel) for his active involvement. The committee would also like to thank various Directors of ICAR Institutes, Vice-Chancellors and members of the scientific community for their feedback and valuable suggestions concerning required improvements in the ARS system. Finally, it is our expectation that recommendations of the Committee will be implemented by the ICAR as a package, so that there is a perceptible change in the service and an enabling environment is created for much better performance of agricultural scientists in meeting the emerging challenges before Indian agriculture.



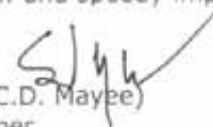
(R.S. Paroda)
Chairman

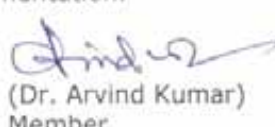
16 March, 2011

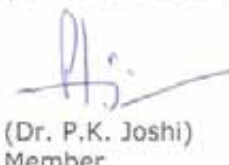
ARS-Review Committee

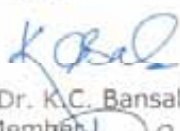
A committee was constituted by the ICAR vide office order no.7(1)/2010-Pers.IV dated the April 19, 2010 under the Chairmanship of Dr. R. S. Paroda, former Director General, ICAR to review the existing disciplines in the ARS, eligibility qualifications for ARS disciplines, Score-card for direct selection to various scientific positions and to suggest management reforms in the ARS.

After having had extensive deliberations with all stakeholders, research managers and a cross section of the scientific community, the Committee has made various recommendations for needed reforms in the service. Accordingly, we the members of this Committee are pleased to present this report to the Council for its review and speedy implementation.

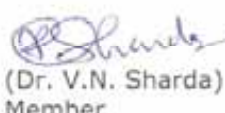

(Dr. C.D. Mayee)
Member


(Dr. Arvind Kumar)
Member


(Dr. P.K. Joshi)
Member

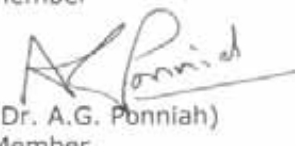

(Dr. K.C. Bansal)
Member


(Dr. V.A. Parthasarathy)
Member


(Dr. V.N. Sharda)
Member


(Dr. Pitam Chandra)
Member


(Dr. K.T. Sampath)
Member

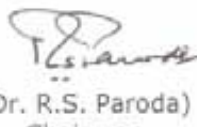

(Dr. A.G. Ponniah)
Member


(Shri K.K. Bajpai)
Member


(Shri J. Ravi)
Member


(Shri Rajiv Mangotra)
Member


(Shri V.K. Sharma)
Member Secretary


(Dr. R.S. Paroda)
Chairman

EXECUTIVE SUMMARY

A committee to review the Agricultural Research Service (ARS) was constituted under the chairmanship of Dr. R.S. Paroda, former Director General, ICAR and Secretary, DARE. The committee was assigned the task to review: (i) the existing areas of specialization in the ARS and suggest necessary changes, (ii) recommend eligibility qualifications for ARS, (iii) examine the existing score card for direct selections and (iv) to propose necessary reforms in the ARS system.

The Committee had extensive discussions during its six meetings and ensured wide consultation through members representing different disciplines. A summary of the major recommendations is given below:

1. The committee proposes to broadly group Agriculture and Allied Sciences in seven core areas with 56 ARS disciplines as against the existing 62 disciplines classified in five broad groups.
2. The other changes suggested by the committee are: (i) merger of four sub-disciplines of soil science into one discipline, (ii) introduction of a new discipline of Spices, Plantation Crops /Medicinal and Aromatic Plants, (iii) integration of Genetics and Plant Breeding into one subject, (iv) bifurcation of Agricultural Structures and Process Engineering into two separate disciplines of "Agricultural Structure & Environmental Management" and "Agricultural Process Engineering", (v) renaming the discipline of Forestry as Agroforestry, (vi) retaining Environmental Science and Agricultural Meteorology as separate disciplines and (vii) phasing out/merger of discipline of Agricultural Physics.
3. Creation of three new disciplines in Fisheries Sector *i.e.* (i) Fish Nutrition (ii) Fish Health and (iii) Fish Genetics and Breeding in addition to the existing three disciplines.
4. Discipline of Agricultural Extension in itself be considered inclusive of Veterinary, Dairy, Fishery and Home Science extension disciplines. The same analogy applies to Agricultural Economics. Hence, further bifurcation into sectors of agriculture is not justified.
5. Twelve disciplines have been identified which have supporting service functions and hence are not required for basic or strategic research in the ICAR. Moreover, such positions are also isolated in only few institutions. Therefore, in order to ensure their service function, it is proposed to hire experts through outsourcing or through lateral entry at the level of Senior Scientist or Principal Scientist as per requirement of the concerned Institute.

6. Broad changes in the qualifications for each ARS discipline, commensurate with VI Pay Commission recommendations, have been suggested with a view to attract the best talent in the ARS.
7. Similarly, for direct selection to the post of Sr. Scientists in Pay Band 4 of ₹ 37,400 – 67,000 with RGP of ₹ 9000, apart from the minimum essential qualifications of doctoral degree in the respective discipline, a candidate should be considered eligible if he/she has rendered a minimum of 8 years service as scientist / lecturer / extension specialist or in an equivalent position in the Pay Band 3 of ₹ 15,600 – 39,100 with different RGPs. Similarly, for the selection of Principal Scientist, a minimum service of 11 years has been suggested.
8. Changes have also been suggested in the model qualifications and the eligibility criteria for selection to the posts of Heads of the Divisions/Regional Stations, Project Coordinators/Joint Directors of Institutes other than Deemed Universities, Assistant Director Generals (ADGs), Directors, ZPDs and Joint Directors of Deemed Universities and also Deputy Director Generals (DDGs)/National Directors (NDs) and Directors of Indian Agricultural Research Institute (IARI), National Dairy Research Institute (NDRI), Indian Veterinary Research Institute (IVRI), Central Institute of Fisheries Education (CIFE) and National Academy of Agricultural Research Management (NAARM).
9. Improvements in the Score Card for direct selection to various scientific positions have been suggested in order to bring in more objectivity and transparency and to overcome existing concerns and discrepancies.
10. Major suggestions for changes in the selection process of DDG level positions have been recommended. The proposed changes for selection at two levels is proposed for inclusiveness and transparency for better acceptance and perfection.
11. The Committee has also suggested changes in promotion policy in line with the new UGC guidelines and qualifications for direct recruitment with introduction of incentives and regular absorption for staff through lateral entry at higher levels/Research Management positions.
12. For an overall improvement in the system, various management reforms in major areas such as: Human Resource Development (HRD) through active involvement of NAARM, Management Leadership Development, Review of Cadre Strength of Scientists in time bound manner, Harmonization of disciplines between SAUs, transparency in the assessment system for accountability, promotion and transfer policy, lateral movement through sabbatical leave provisions, initiation of ICAR post-doctoral fellowship, competitive research grant system etc., have been suggested.

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1. PREFACE

The Indian Council of Agricultural Research is an apex body for undertaking, planning, coordination and management of agricultural research and education in the country. It serves as a national coordinating agency in the area of agricultural research and education. It has a vast network of Research Institutes, National Research Centers, National Bureaus, Project Directorates, Zonal Project Directorates spread all over the country. In addition, the ICAR is also entrusted with the responsibility of fostering and supporting the growth and development of State Agricultural Universities (SAUs) forming part of the National Agricultural Research System (NARS). Since the ICAR has a national mandate to serve the cause of agricultural research and education, it occupies a unique position amongst the major scientific organizations in the country.

The ICAR being a premier scientific organization, the Scientists in the ICAR have a major role to play in fulfillment of objectives of the organization. The effectiveness of the organization, therefore, largely depends upon the quality and quantum of work done by the Scientists. In fact, the personnel policies hold the key to success and effectiveness of an organization. With this broad objective in view, the ICAR with the approval of Union Cabinet constituted the Agricultural Research Service for its Scientists on 1.10.75. The main objective of the service was to generate a scientific culture and opportunity for continuous professional growth and life long specialization without any constraint and to promote individual and collective initiative for improving the productivity of research and application of knowledge in matters relating to all aspects of agriculture. Since the introduction of ARS, the Council has been giving continuous thought to the question of matching its personnel policies with the basic objectives of the organization and the requirements of its research programmes. For the growth of any

organization, it is essential that the personnel policies should be so oriented as to serve the specific needs of the organization.

To meet this objective and to fill critical gaps in the research efforts of ICAR, the Hon'ble Union Agriculture Minister had constituted a Committee under the Chairmanship of Dr. R.S. Paroda, former Director General, ICAR and Secretary, DARE to review the existing disciplines in the ARS, eligibility qualifications for various scientific positions including Research Management Positions (RMPs) in ICAR, Score Card for direct selections etc. and to make recommendations that would help ICAR redefine its priorities and respond to future challenges in highly competitive global environment.

After having had extensive deliberations with all the stake holders, Research Managers and a cross section of the scientific community, the Committee has made a series of recommendations which are set out in this report. It is hoped that these recommendations, when implemented, in totality, will go a long way in enabling the ICAR to respond to the challenges that lie ahead and also in advancing the growth of agricultural research and development in the country.

2. a) COMMITTEE AND TERMS OF REFERENCE

2.1 The ICAR is primarily a scientific organization and its success is largely attributable to the research work carried by its Scientists. In the post independent era, the success of Green Revolution had helped India attain self-sufficiency in foodgrains. The scientists, therefore, hold the key to the success and effectiveness of the organization. For re-structuring its personnel policies, the ICAR had constituted the Agricultural Research Service (ARS), which got started on October 1, 1975. The main objective of the service was to generate a scientific culture and opportunity for continuous professional growth and lifelong specialization without any constraint and to promote individual and collective initiative for improving the productivity of research and application of knowledge in matters relating to all aspects of agriculture.

2.2 The formation of ARS was, therefore, a major milestone in the organization of research in the field of agricultural sciences in the country. The service has been in operation long enough (35 years) for a meaningful evaluation/introspection regarding various aspects of the service. Its evaluation has been done from time to time and several changes had been introduced in the service depending upon needs of the organization. The basic purpose of these changes had been to foster a spirit of cooperation in place of unhealthy competition and to afford opportunities to the scientists for continuous growth in the organization. In order to streamline the service further for meeting new challenges and to bring about reforms in the ARS, the Hon'ble Union Agriculture Minister constituted a Committee under the Chairmanship of Dr. R.S. Paroda, former Director General, ICAR and Secretary, DARE vide ICAR Office Order No. 7(1)/10 - Per. 1V dated 19.4.2010 with the following members:

1.	Dr. R.S. Paroda, former Director General, ICAR & Secretary, DARE	Chairman
2.	Dr. C.D. Mayee, Chairman, ASRB, Pusa, New Delhi	Member
3.	Dr. Arvind Kumar, Dy. Director General (Edn.), ICAR	Member
4.	Dr. P.K. Joshi, Director, NAARM, Hyderabad	Member
5.	Dr. K.C. Bansal, Director, NBPGR, Pusa, New Delhi	Member
6.	Dr. V.A. Parthasarathy, Director, IISR, Calicut	Member
7.	Dr. V.N. Sharda, Director, CSWCR&TI, Dehradun	Member
8.	Dr. Pitam Chandra, Director, CIAE, Bhopal	Member
9.	Dr. K.T. Sampath, Director, NIANP, Bangalore	Member
10.	Dr. A.G. Ponniah, Director, CIBA, Chennai	Member
11.	Shri K.K. Bajpai, former ADG (Admn. & Coord.), ICAR	Member
12.	Shri J. Ravi, Director (Personnel), ICAR	Member
13.	Shri Rajiv Mangotra, Dy. Secretary (Per.), ICAR	Member
14.	Shri V.K. Sharma, Under Secretary (Per.), ICAR	Member-Secretary

2.3 The terms of reference of the committee had been:

- i) Revisiting the disciplines of the Agricultural Research Service (ARS) with a view to making recommendations regarding their relevance and nomenclature and changes required, if any;
- ii) Examining the need in today's context and for the foreseeable future in agricultural sciences, for new disciplines or specializations;
- iii) In view of (i) and (ii) above, suggesting incorporation of additional disciplines and phasing out such disciplines that are no more compatible with contemporary requirements in agricultural research and development.

- iv) Recommending the revision of qualifications in respect of any discipline(s) that is/are existing, and is/are to continue, and suggesting qualifications for any discipline(s) that is/are recommended for inclusion at all levels.
- v) Revisiting the Score Cards for direct recruitment to various scientific positions in ICAR.
- vi) Any other issue or matter for improvement in ARS or emanating or incidental to the above terms of reference.

b) METHODOLOGY & APPROACH

- 2.4** The task before the Committee was enormous considering the fact that the Committee had to review almost each aspect of the Agricultural Research Service covering ARS disciplines, eligibility qualifications for each discipline at entry level, eligibility qualifications for direct selection to various scientific posts including Research Management Posts in ICAR, Score Card for direct selection of scientists to senior scientific posts and all management related aspects.
- 2.5** In order to critically look into the issues arising out of TOR, the committee met on six occasions at New Delhi (17.5.2010, 29.6.2010, 11.8.2010, 1.10.2010, 26.11.2010 and 15.2.2011). At the first meeting of the Committee, Director (P) made a presentation giving overall view of the ARS. Based on this presentation the committee prepared a conceptual framework and strategy for examining the various issues such as re-structuring of existing ARS disciplines, eligibility qualifications and Score Card for direct selection posts, reforms in the ARS etc.
- 2.6** The Committee decided that the members should collect maximum feedback and suggestions from scientific community, research managers, Directors of ICAR Institutes, Vice-Chancellors of State Agricultural Universities and other stakeholders. Based on these inputs, the committee members should crystallize their views and make presentation in their areas in subsequent meeting. The Committee strongly favoured a consensual approach for addressing

the key issues involved in an effort to ensure that the recommendations of the Committee are implemented smoothly. The Committee had the privilege of all available expertise, since members were drawn from across the various ICAR Institutions representing the major disciplines of agricultural sciences.

- 2.7** During the course of its work, the Committee had interactions with the Joint Directors/ Deans of Deemed Universities under the ICAR namely; the IARI, NDRI, IVRI, CIFE and the Vice-Chancellor of UAS, Bangalore on all major issues. The Committee received valuable inputs from them during the course of discussions.
- 2.8** Before finalization of report, the Committee invited Director General, ICAR and Secretary, ICAR on 15.02.2011 for interactions. During the course of the session, the major recommendations were highlighted. The various inputs given by DG as well as Secretary, ICAR during the interaction helped in fine tuning the final recommendations.
- 2.9** After debating the issues extensively and taking into account the comments and suggestions received from various sources, the Committee has finally come out with its recommendations which are based on collective wisdom of all members, as explained in the succeeding paragraphs, for consideration of the ICAR.

3. RESTRUCTURING OF ARS DISCIPLINES

- 3.1** In order to examine the restructuring of ARS disciplines, the committee critically looked into the existing grouping of ARS disciplines. The committee observed that at the time of constitution of the Agricultural Research Service, a total of 68 disciplines were approved under 5 broad groups of agriculture and allied sciences; Plant Sciences, Animal Sciences, Physical Sciences, Social Sciences and 'Technology and Engineering' for the purpose of recruitment to ARS. Currently, the recruitment is being made to 62 disciplines in 25 broad areas of specialization in the ARS (**Annexure I**). This exercise was carried out in the past by various committees and the recommendations of these

committees had been implemented from time to time depending upon the need of the organization. These disciplines require a review in view of the significant changes over the period to keep pace with the latest technological advancements and innovations in agricultural sciences.

3.2 After going through the existing list of approved disciplines in the ARS, the Committee observed that some of the disciplines particularly those in the Engineering stream such as Mechanical Engineering, Electrical Engineering, Chemical Engineering, Textile Chemistry, Textile Manufacture, Aquaculture Engineering, Electronics and Instrumentation etc. are not directly relevant to the mandate of the ICAR and have marginal presence in the ARS. The Committee felt that these disciplines should be taken out of the purview of the ARS Examination for making recruitment at the entry level. The requirements of appropriate personnel in these disciplines could be met either through lateral entry at Senior Scientist or Principal Scientist level or through outsourcing of services on need basis. Similarly, the committee decided to remove some of the subjects in the discipline of Home Science by recognizing only “Home Science” as a major subject at the entry level. A total of 12 disciplines, as listed below, have been suggested for exclusion from the list of disciplines for making recruitment to ARS:

- i. Electrical Engineering
- ii. Mechanical Engineering
- iii. Chemical Engineering
- iv. Textile Manufacture
- v. Textile Chemistry
- vi. Electronics and Instrumentations
- vii. Child Development
- viii. Textile and Clothing
- ix. Food and Nutrition
- x. Agricultural Physics
- xi. Aquaculture Engineering
- xii. Computer Application in Agriculture

- 3.3** The Committee observed that in view of emerging new areas in the agriculture sciences, the ICAR should now explore the possibility of introducing new disciplines such as Nano-technology, GIS, Remote Sensing, Genomics etc. for meeting future challenges. The ICAR should critically look into the requirement of manpower in these areas as per the strategic framework in the vision 2030 document. The committee is, therefore, not recommending the introduction of these disciplines at this stage. However, after working out the requirements as suggested above, the ICAR should consider initiating the process for adding these disciplines in the ambit of ARS.
- 3.4** In the course of its review, the Committee found that the nomenclature of a number of ARS disciplines was not in line with the nomenclature of Masters programmes in which many Deemed Universities (DU) and the State Agricultural Universities (SAU) are awarding degrees to students. The Committee felt that there was an urgent need for harmonizing the nomenclature of various disciplines, which must be facilitated by the Education Division of the Council. The Committee is of the considered view that there has to be a reasonable harmonization as far as the nomenclature of degree programmes offered by the DUs/SAUs and the ARS disciplines so as to have an effective co-ordination and integration necessary for improving the efficiency of the system. Additionally, there should be no micro level specializations of the broad disciplines at the Masters level. At the Masters level, the entire focus should be on broad disciplines so that major subjects get due attention. The question of specialization, if any, should arise only at the Ph.D level. The Committee observed, in particular, that there was much overlapping in the degrees currently offered in the field of Fishery Sciences.
- 3.5** The committee had gone into the details of Master degree programmes being offered by various DUs, SAUs, CAU and CUs having Agriculture mandate. A detailed study of the courses offered by 56 Universities of Agriculture and Allied Sciences in the country revealed that these Universities offer degrees in 90 subjects for Masters degree programmes. Degrees in 30 programmes at Masters level are awarded only by a few Universities (1 – 4 only). The committee noticed that

there has been an increasing trend of establishing universities in the disciplines of Veterinary and Horticulture sciences. If this trend continuous, then there are chances of more specializations emerging at the Masters level itself and a demand may arise to introduce these degrees as new disciplines in the ARS. In view of this growing trend, the committee members felt that the Education Division of ICAR should look into this trend critically so as to ensure synchronization of subjects and degrees at the PG level because for every Master degree programme offered by the Universities, a new ARS disciplines cannot be created. The ICAR is expected to ensure an integral approach and look to ARS entry point for recruitment of Scientists in areas of concern for the institutions and projects being run by the ICAR throughout the length and breadth of the country.

3.6 The Committee also noticed that there was a trend to divide the discipline of Agricultural Extension as Veterinary Extension, Animal Sciences Extension, Dairy Extension, Fish Extension, Horticulture Extension and so on. This was creating hindrances in the optimum utilization of the existing manpower in this discipline. This aberration needs to be removed to give an impetus to the efforts of all the institutions contributing to strengthening and development of agricultural research and education. The SAUs and also the DUs, CAU and CUs should also review their syllabi and course-curricula and take all possible steps to ensure that there is no further division of the major disciplines at the Master's level and that degrees are awarded to students only in major disciplines of agricultural sciences. The Committee suggests that the Education Division should take up the matter with the DU and the SAU urging them to take remedial measures to realign the disciplines in which they are currently awarding degrees at the Master's level with the disciplines identified by the Committee for recruitment to ARS so as to ensure better coordination and integration.

3.7 The Committee felt that in the present scenario the continuation of discipline of Genetics and Plant Breeding as separate disciplines has lost relevance as both are inter-linked and the course content are overlapping. The committee therefore recommends that the discipline

of genetics and plant breeding be combined into one discipline for making recruitment to ARS.

- 3.8** The Committee noticed that there were four ARS disciplines of Soil Science viz. Pedology, Soil Chemistry / Fertility / Microbiology, Soil Physics, Soil and Water Conservation and Agricultural Chemistry and found that due to this division at the entry level there is a difficulty in finding suitable personnel. The Committee, therefore suggests that only one ARS discipline i.e. 'Soil Science' should remain for making recruitment at entry level.
- 3.9** The Committee noticed that the discipline of Horticulture is evolving and growing as a number of specialized colleges of Horticulture practically in all the SAUs are coming up very fast. Not only the colleges but now exclusive Horticultural Universities are also coming up. Four Horticultural Universities are already established. The trend is likely to expand further and, therefore, the committee recommends addition of one more discipline i.e. Spices and Plantation Crops in the ARS, in view of the fact that currently many SAUs are offering degree in this discipline at the M.Sc. level.
- 3.10** The Committee noticed that as per the mandate of ICAR, Agroforestry is the required discipline and not forestry. The committee therefore suggests the replacement of the discipline of Forestry by Agroforestry to have focused research on agro-forestry in consonance with the mandate of the ICAR. Environmental science needs to be strengthened to include areas of climate change and adaptation. Agricultural Meteorology should continue as a separate discipline. However, the subject of Agricultural Physics being offered only at IARI needs to be phased out as it has lost its relevance in the changed scenario.
- 3.11** In Engineering and Technology, considering the growing importance of Agricultural Structures and Process Engineering, the committee is of the view that these disciplines be bifurcated into two separate disciplines for the purpose of recruitment to ARS.

3.12 Taking into account the functional needs of the ICAR with reference to its mandate and the suggestions received from various quarters, the Committee recommends 56 disciplines in the following seven major groups:-

1. Crop Sciences
2. Horticulture
3. Animal Sciences
4. Fishery Sciences
5. Natural Resource Management
6. Social Sciences
7. Engineering and Technology

The nomenclature of disciplines under each major group are given in **Annexure-II**. The Committee suggests uniform nomenclature of disciplines to be adopted in future to avoid any confusion.

3.13 In order to have optimum results from this exercise, the Committee is of the considered view that ICAR should undertake a review of cadre strength of its Scientists in various disciplines in the ICAR Institutes since the same was done a decade ago. The Committee felt that the whole exercise of restructuring the ARS disciplines would be futile if the cadre strength of Scientists in various ICAR Institutes was not reviewed periodically. The Committee, therefore feels that there is an urgent need to undertake a holistic review on priority. Considering the importance and urgency of this issue, the Chairman had already addressed a communication to the DG, ICAR in this regard as an interim recommendation of the Committee.

3.14 The Committee also felt that similar exercise may also be carried out by the Agricultural Scientists Recruitment Board for harmonizing the disciplines for conducting the NET and ARS Preliminary examinations in future.

4. ELIGIBILITY QUALIFICATIONS

a) At Entry Level

- 4.1** Appropriate eligibility qualifications for each discipline of ARS at entry level is very crucial for making recruitment of suitable persons in order to carry out quality research in accordance with the mandate of ICAR. The Committee noticed that there were nearly 600 vacancies at the entry level in the ARS. The committee critically looked into the existing qualifications at entry level in ARS in various disciplines and it was observed that there were several anomalies in the existing qualifications in most of the disciplines. In many disciplines, the specializations required by the ICAR did not match with the specialization offered at the Master's level by a number of SAUs including the deemed universities. As a result, there was a mismatch between demand and supply of qualified manpower leading to critical gaps in the recruitment process. This in turn is affecting the quality of research.
- 4.2** In view of the above, the Committee felt the need to broaden the scope of existing qualifications so as to ensure the bridging of critical gaps and shortage of qualified manpower. This was necessary to make the selection process more competitive and to improve the quality of research. The Committee deliberated upon the various inputs given by the members of the Committee and after critical review of the existing qualifications vis-à-vis these inputs the Committee recommended the new eligibility qualifications for each ARS discipline as given in [Annexure -III](#).

b) For Direct Selection to Senior Scientific Positions

- 4.3** Besides recruitment of Scientists at the entry level, the ICAR also makes recruitment to senior scientific positions in the ICAR including Research Management Positions (RMPs) on direct selection basis through lateral entry. The ICAR notifies eligibility qualifications for selection to these posts. These qualifications have been revised on several occasions in the past depending upon the functional needs of

the organization. The eligibility qualifications for these posts were last revised in the year 2007. A further review of these eligibility qualifications is now necessitated after the UGC had revised the eligibility qualifications for teaching positions in the centrally funded universities and colleges following revision of scales of pay of teachers on the recommendations of the Sixth Central Pay Commission.

- 4.4** The Committee critically looked into the existing eligibility qualifications for all the scientific posts vis-à-vis those prescribed by the UGC for various teaching positions in universities and colleges and observed that there was a need to realign the existing eligibility qualifications for scientific posts with the eligibility qualifications prescribed for corresponding teaching positions in the Universities and Colleges. The Committee further observed that there was an urgent need to look into certain provisions in the current eligibility qualifications for various posts particularly in the case of Senior Scientists keeping in view the inputs received from the members and scientific community.
- 4.5** The Committee suggested modifications in the existing eligibility qualifications for senior scientific posts in the light of suggestions received in order to harmonize the same with UGC qualifications. A statement showing the existing eligibility qualifications for direct recruitments to all lateral entry positions, the revised UGC qualifications for comparable teaching positions and the proposed revised qualifications for senior scientific positions in ICAR is given in **Annexure - IV**.
- 4.6** The Committee felt that there was need for making changes in the process of Selection of RMPs. The Committee members were in favour of introducing a two-tier system of selection. The committee strongly feels that this new system could be tried for making selections to the posts of Deputy Directors General and Directors of IARI, IVRI, NDRI, CIFE, NAARM, National Institute of Abiotic-Stress Management (NIASM) and other equivalent positions.

5. REVISION OF SCORE CARD FOR DIRECT SELECTIONS

- 5.1 The existing Score Card for direct selection to senior scientific posts in ICAR required changes in order to make the selection more objective and transparent. It was noted by the Committee that similar to eligibility qualifications, the Score Card had also been revised on several occasions in the past with the intention of being more objective and to ensure a fair selection process. However, the Committee felt that the past experience for making selections in the ICAR shows that the existing Score Card requires further improvement. The Committee therefore critically looked into the existing Score Card in order to work out the areas where improvement could be made.
- 5.2 After going through the existing Score Card, the Committee observed that there were some anomalies in the Score Card which needed to be addressed. Some of the members had expressed their concerns about the specific clause in the current Score Card for selection to the posts of the DDGs and Directors of National Institutes of ICAR/Deemed Universities which provides for 100 percent weightage to interview alone after the preliminary screening by the ASRB. The members argued that this lacked objectivity and did not do justice to the scientists who are eminent and have had significant achievements to their credit. The Committee was of the view that the weightage for interview needed to be reduced in the case of selection of DDGs/Directors of National Institutes/Deemed Universities and more weightage should be given to research accomplishments and overall achievements of the Scientists so as to attract talent. On the basis of consensus reached, the Committee recommends a revised Score Card for direct selection of scientists as given in **Annexure - V**. It is suggested that the ASRB may now process the matter further for describing the details under each parameter and develop the screening procedures suitably.

6. GENERAL REFORMS

6.1 Foundation Course

Foundation course for entry level scientists may be revisited keeping in view the present requirements of the Council. It should have more professional orientation and should include training in rural areas as well. The Committee, therefore, recommends that the duration may be extended to nine months with 90 days at the NAARM, Hyderabad (80 days in the beginning and 10 days for evaluation at the end), and six months on-job attachment training with any state-of-art research organization/institution, including one month rural orientation in the specialized discipline of ARS Probationers through attachment with some adjoining KVKs or the Regional Centers of the Institutes.

6.2 Transfer Policy

The postings of ARS probationers must be announced before joining the system and should be based on specific requirement of the institute concerned. The entry level scientists should initially be posted at the institute headquarters for a minimum period of 5 years after the completion of their foundation course. Later, under a transparent ICAR policy on transfers, the required postings be made at outstations/regional stations with clear provisions of incentives and opportunities to return to the Headquarters after having served for a minimum period of 5-10 years. This would obviously require a clear and unbiased transfer policy to be implemented by the ICAR in future. Special consideration be given to working couples for posting/transfer so as to accommodate them in the same station/Institute to the extent possible.

6.3 Promotion policy

Promotion policy must be made more objective and transparent so as to encourage merit in the system. It should, therefore, be based on more critical evaluation rather than routine assessment of work

output. It should lead to building a cadre of science leaders in their own specializations and disciplines, especially for the promotion from Senior Scientist to Principal Scientist level. The emphasis should be on the scientific contributions, research applicability and impact, resource generation, leadership qualities and communication skills. There is a need to ensure that only merit remains the sole criterion so that performance gets rewarded. Accordingly, current promotion system needs to be revisited to ensure more realistic assessment. In view of the proposed changes in the eligibility criteria for direct selection to Senior Scientific posts, it is necessary to revisit the eligibility for promotion in the ARS system.

6.4 Incentives and Rewards

In the present scenario, there are practically no incentives beyond the position of Principal Scientist. The professional career stagnates after reaching the position of Principal Scientist. Lack of incentives and rewards beyond this level leads to adverse impact on research output and research leadership. It is, therefore, necessary to ensure that much needed incentives and rewards are in place in order to maintain the momentum of research programmes aiming at excellence in service. Accordingly, it is proposed that the number of positions of National Professors and National Fellows, which were fixed almost more than a decade ago, be now doubled. Also, a cadre of Senior Professor, as per UGC pattern, needs to be considered. These positions have to be filled after a thorough screening and selection process by a high level Search-cum-Selection Committee constituted by the Council in consultation with the ASRB.

6.5 Human Resource Development

For much needed capacity building, frequent refresher and mid-career professional programmes in India and abroad be encouraged by the Council. At least, 5 per cent budget of the Institute be allocated for Human Resource Development (HRD) and special efforts be made by the Institutes to have their scientists exposed in the best institutions and laboratories both within and outside India.

A regular three-month comprehensive programme on Agricultural Research Management be developed and started by NAARM for the mid-level research managers. This programme be made mandatory for all those scientists aspiring for Research Management Positions during their career in the ICAR system.

It is suggested that the NAARM must regularly organize a Short Orientation Programme (about seven to ten days) for senior level functionaries such as: Vice-Chancellors, Deans, Directors in the SAUs and the Directors, ADGs and DDGs in the ICAR system. This will instill much needed confidence in their managerial responsibility for yet better performance.

6.6 Selection to Research Management Positions (RMPs)

Selection of Directors and research managers is a more challenging task. It is very important aspect for the future of any research institute/organization. Selection process for RMPs must, therefore, take into consideration the professional contributions, leadership qualities and the over all acceptance as well as recognition of Research Managers/Scientists in their profession. The Search-cum-Selection process for the RMPs, especially for the senior positions at the level of Directors of Deemed Universities, other Directors in equivalent grade, and the Deputy Directors General be henceforth made more consultative, transparent and rigorous. The Committee, therefore, proposes that a two tier system for the selection of senior management positions be henceforth adopted. First, a Preliminary screening by the ASRB of 3-5 potential candidates and then a consultative process involving Senior Scientists and Research Managers of the concerned Institutes/Directorate/Divisions at the Headquarters for further short-listing/prioritization based on a staff seminar, reference letters as well as personal discussion with referees, personal discussion of the candidates with senior management staff and second, a final interview and selection process by the ASRB. Similar pattern, being adopted in the CGIAR International Research Centers, has been found very useful and has ensured much needed credibility and acceptance of the selected persons by the system.

6.7 Review of Sabbatical Leave Provision

To promote their professional competence and excellence as well as lateral movements of scientists, the ICAR had framed Sabbatical Leave Rules for its scientists in August, 1996. However, these rules somehow have not served the purpose for which these were intended. The objective of these rules was to encourage lateral movement of ICAR Scientists to go to other institutions or organizations in India or abroad to have new exposure and to undertake specialized study, research, training/teaching or other related professional activities for enhancing their professional skills. Unfortunately, very few scientists have availed this provision. There is, therefore, a need to revisit the Sabbatical Leave Rules and make them more attractive or even compulsory to avail atleast once in the service career of the scientist. In the same manner, scientists and experts from other institutions/SAUs or organizations in India or abroad be invited for short term teaching, research or some specialized study/training in ICAR institutions. Such lateral movement of experts will help the young scientists for sharing of knowledge and dissemination of research results. This would not only help ICAR scientists to improve their professional skills but will also ensure mobility of scientists within the National Agricultural Research System (NARS), so critical for availing the best expertise available within the system.

6.8 Tenurial Appointments for accountability

Currently, recruitment of scientists is being made on a regular basis against available vacancies in various grades and disciplines. A scientist joining the ARS continues in service till the age of his/her superannuation. This provision ensures continuity in service irrespective of performance and output. Hence, accountability is invariably a matter of concern especially when self complimenting service ARS rules allow scientists to move up in the ladder periodically. Often in such cases, there is hardly any distinction between performers and non-performers. Hence, in order to ensure accountability in the system, which is a big challenge for organization like ICAR, it is essential that the continuity of scientists in service is

very much linked to their performance, which should be regularly monitored and evaluated in a transparent manner. There is, therefore, a need for a major shift in the present recruitment policy. In order to address this, the Committee is of the view that ICAR henceforth recruits scientists on tenurial basis, as is being done by most of the International Centers of CGIAR, initially for a period not exceeding 10 years at the entry level. Later, the tenure be extended each time for five years depending on their highly satisfactory performance as judged by an unbiased and transparent evaluation system. This is expected to improve the performance of scientists as well as the quality of research significantly.

Alternatively, till the above recommendation is implemented, the existing provision relating to the review of cases for retention in service at the age of 50 and 55 years under Rule FR 56 (j), has to be followed rather more strictly as a matter of policy. For this, a collective review process by the senior managers and peers, especially of those scientists whose performance is considered not satisfactory, be undertaken with a provision to have a golden hand shake. Obviously, this would require a bold policy decision in the best interest of the organization. Committee is of the view that it will create an environment of accountability and better performance.

6.9 Post Doctoral Fellows

The ICAR is carrying out its research mainly through existing scientific strength which is fixed around 6000 scientists for over last two decades. The success of research programmes largely depends on the quality of research being carried out by the scientists. It is general experience that quite a number of scientific positions in Institutes remain unfilled for one reason or the other, thereby adversely affecting the research activities of the organization. There is, therefore, a need to have in place an alternate mechanism to augment the scientific manpower temporarily to carry out research work as well as to ensure continuity in research particularly in time bound research programmes. To address this, the Committee proposes that a scheme of ICAR Post-doctoral Fellowship, whereby services of young scientists

could be availed, be started. Bright Ph.D scholars can accordingly be engaged under the scheme initially for a period not exceeding two to three years on a fixed remuneration or regular scale. In no case, their services be extended beyond five years under this scheme. A pool of bright Ph.D. scholars (both from within India and abroad) be maintained and their services hired by the Institutes as and when needed. This will not only ensure timely completion of research programmes but will also provide an opportunity to the young and talented scholars to join the ICAR system and work in highly challenging scientific projects of great national importance. It is suggested that to begin with, a provision of about 200 ICAR Post-doctoral Fellowships be made in the next Five Year Plan and these be allotted to various institutions on their justified demands.

6.10 Introduction of Competitive Research Grant Scheme

In the past, the ICAR followed a system of funding ad-hoc research schemes for addressing critical areas of research out of AP Cess Funds. This scheme had turned out to be a great success and had encouraged scientists all over India to address new challenges and location specific problems which produced valuable results. It not only provided opportunities to all the scientists across the National Agricultural Research System to undertake focused research in their own areas of specialization but also brought about better co-ordination and integration while addressing critical gaps. The AP Cess funds is no longer in existence. Therefore, there is a strong need to look for an alternate arrangement whereby ICAR may continue to sponsor such ad-hoc research schemes in order to sustain this mode of short run high impact research. The ICAR may evolve a Competitive Research Grant Scheme on the lines of AP Cess Fund for sponsoring short term research projects for 3 years period (maximum upto 5 years) in key areas of research as is being done currently under the National Agricultural Innovation Project (NAIP), and also by the Department of Science & Technology (DST) and the Department of Biotechnology (DBT). We propose that ICAR initiates a competitive Research Grant Scheme in the Twelfth Five Year Plan by allocating ₹ 200 crores initially. This provision will enthuse young scientists to undertake innovative research to address emerging challenges.

7. OTHER RECOMMENDATIONS

- 7.1** The ICAR may soon plan to undertake a review of the cadre strength of scientists in all its technical divisions and institutes. This is urgently needed in view of the emerging challenges, new programmes and institutions created. The last cadre review was done more than a decade ago and hence this should be a time bound exercise which needs to be given high priority by the Council.
- 7.2** In order to ensure that a talented pool of science managers is retained in the ICAR system, the Research Managers, who are selected by the ASRB through lateral entry, should be absorbed in the ICAR service permanently, based on their satisfactory performance in service to be determined as soon as they complete three years of satisfactory service.
- 7.3** The Heads of Divisions of ICAR institutes and Regional Stations be given one more tenure based on assessment of their good performance, as is being done in case of Research Management Positions (RMPs). This will provide much needed incentive to good performers and avoid unnecessary work load for the ASRB.
- 7.4** The Education Division of ICAR must initiate, on priority, the process of regular consultations with the State Agricultural Universities so as to ensure harmonization of the nomenclature of various degrees offered by the SAUs in order to ensure their conformity with the NET/ARS disciplines. This is critical in view of existing large scale variations and more so in the light of suggested ARS disciplines by this Committee. This should be a time bound programme ensuring much needed harmonization in the next three years.
- 7.5** For carrying out higher administrative responsibilities, the Directors of ICAR Research Institutes, ADGs and DDGs may be given higher pay or at least 10% additional allowance as an incentive as is the case with

the Principals of Colleges and Vice Chancellors of State Agricultural Universities under the new UGC pay package.

7.6 Time and again, ICAR policies regarding maintaining a national character in the institutes have been emphasized. It is reiterated again that under no circumstances more than 50 per cent of the scientists should be from same State in an institute so as to ensure the national character of ICAR scientific service. We need to enforce this principle both in letter and spirit.

7.7 The issue of gender balance is a matter of concern presently and this need to be addressed by the Council. The current status be reviewed and more pro-women opportunities provided by the Council for upward movement of women scientists both in the scientific cadre as well as in research management positions. Hope this issue will receive due attention both by ICAR and ASRB for removing current imbalance.

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Annexure – I

EXISTING DISCIPLINES FOR ARS-MAIN EXAMINATION ALONG WITH ELIGIBILITY CRITERIA

Prelim-ARS

Disciplines		Qualification	NET – Pass Subject Criteria	
1.	Plant Genetics	Masters degree in Genetics or Agriculture/Botany with specialization in Genetics/Plant Breeding	1.	Crop Improvement
2.	Plant Breeding	Masters degree in Agriculture/Botany with specialization in Plant Breeding or Plant Genetics		
3.	Economic Botany	Masters degree in Agriculture/Botany/ Horticulture with specialization in Agriculture Botany/Economic Botany/ Plant Taxonomy/Plant Genetic Resources		
4.	Seed Technology	Masters degree in Agriculture/ Botany with specialization in Seed Science/ Seed Technology or Seed Science and Technology		
5.	Plant Pathology	Masters degree in Agriculture/Botany/ Life Sciences/Plant Protection with specialization in Plant Pathology/ Mycology	2.	Crop Protection
6.	Plant Nematology	Masters degree in Agriculture/ Zoology/ Entomology/Plant Pathology/ Plant Protection with specialization in Plant Nematology		
7.	Agricultural Entomology	Masters degree in Entomology/Agriculture /Zoology/ Entomology/Sericulture/ Apiculture/ Plant Protection with specialization in Agricultural Entomology		
8.	Agricultural Chemicals/Organic Chemistry	Masters degree in Agriculture/Organic Chemistry/ Chemistry with specialization in Agricultural Chemicals		

Disciplines		Qualification	NET – Pass Subject Criteria	
9.	Biochemistry (Plant Science)	Masters degree in Bio-Chemistry/Agriculture/ Life Science with specialization in Biochemistry	3.	Basic Plant Science
10.	Plant Physiology	Masters degree in Plant Physiology/ Agriculture /Botany with specialization in Plant Physiology		
11.	Agricultural Biotechnology	Masters degree in Biotechnology/ Molecular Biology/Genetic Engineering/Botany/ Plant Science/ Life Sciences/ Agriculture with specialization in Plant Biotechnology/ Life Sciences		
12.	Agricultural Microbiology	Masters degree in Microbiology/ Agriculture with specialization in Agricultural Microbiology		
13.	Fruit Science	Masters degree in Agriculture/Horticulture with specialization in /Fruit Science/Fruit Crops/ Pomology/ Plantation Crops	4.	Horticulture
14.	Vegetable Science	Masters degree in Agriculture/ Horticulture with specialization in Vegetable crops/Medicinal and Aromatic crops/Vegetable Science/ Mushroom Science/Olericulture		
15.	Floriculture	Masters degree in Agriculture/Horticulture with specialization in Floriculture/ Ornamental Horticulture		
16.	Animal Physiology	Masters degree in Animal Sciences/Veterinary Sciences with specialization in Animal Physiology	5.	Basic Veterinary Sciences
17.	Biochemistry (Animal Science)	Masters degree in Animal/ Veterinary/Dairy/ Fisheries Sciences with specialization in Biochemistry		
18.	Animal Biotechnology	Masters degree in Biotechnology/Life Sciences/ Veterinary/Animal/Fisheries Sciences with specialization in Animal or Veterinary Biotechnology		
19.	Veterinary Anatomy	Masters degree in Veterinary Sciences with specialization in Veterinary Anatomy		

Disciplines		Qualification	NET – Pass Subject Criteria	
20.	Veterinary Pathology	Masters degree in Veterinary Sciences with specialization in Veterinary Pathology	6.	Para Clinical Veterinary Sciences
21.	Veterinary Parasitology	Masters degree in Veterinary Sciences with specialization in Veterinary Parasitology		
22.	Veterinary Public Health	Masters degree in Veterinary Sciences with specialization in Veterinary Public Health/Epidemiology		
23.	Veterinary Pharmacology	Masters degree in Veterinary Sciences with specialization in Veterinary Pharmacology and Toxicology		
24.	Veterinary Microbiology	Masters degree in Veterinary Sciences with specialization in Microbiology/Bacteriology/Virology/ Mycology/Immunology		
25.	Animal Reproduction and Gynecology	Masters degree in Veterinary Sciences with specialization in Animal Reproduction/ Gynecology/Obstetrics	7.	Clinical Veterinary Sciences
26.	Veterinary Medicine	Masters degree in Veterinary Science with specialization in Veterinary Medicine/ Veterinary Preventive Medicine/Veterinary Clinical Medicine		
27.	Veterinary Surgery	Masters degree in Veterinary Sciences with specialization in Veterinary Surgery		
28.	Animal Nutrition	Masters degree Animal/Veterinary Sciences with specialization in Animal Nutrition	8.	Animal Production
29.	Animal Genetics and Breeding	Masters degree in Animal/Veterinary Sciences with specialization in Animal Genetics and Breeding		
30.	Livestock Products Technology	Masters degree in Animal/Veterinary Sciences with specialization in Livestock Products Technology		
31.	Livestock Production Management	Masters degree in Animal/Veterinary Sciences with specialization in Livestock Production Management		
32.	Poultry Science	Masters degree in Poultry Science or Veterinary/Animal Science with specialization in Poultry Science		

Disciplines		Qualification	NET – Pass Subject Criteria	
33.	Aquaculture	Masters degree in Fisheries Science/Marine Biology/ Aquatic Biology/Aquatic Ecology with specialization in Aquaculture/ Mariculture/ Fish Genetics/Fish Biotechnology/Fish Pathology/ Fishery Microbiology/Fishery Biochemistry/ Fish Nutrition.	9.	Fisheries Sciences
34.	Fisheries Resource Management	Masters degree in Fisheries Sciences/ Marine Biology/Aquatic Biology/Zoology with specialization in Fisheries Resource Management/ Fisheries Ecology/Capture Fisheries/ Fisheries Management/Fish Biodiversity/Aquatic Biodiversity/ Ecosystem Management/ Fish Population Dynamics		
35.	Fish Processing Technology	Masters Degree in Fisheries Science with specialization in Fish Harvest/Post Harvest Technology or equivalent Masters degree in Industrial Fisheries/ Fish Microbiology/Food Microbiology or Biochemistry or Food Technology with specialization in Fisheries aspects.	10.	Fish Harvest and Post Harvest Technology
36.	Forestry	Masters degree in Forestry/Agroforestry /Botany with specialization in Forestry	11.	Forestry and Environmental Science
37.	Environmental Science	Master's degree in Environmental Science or Forestry/Agro-forestry/Agriculture with specialization in Environmental Science		
38.	Agronomy	Masters degree in Agriculture with specialization in Agronomy/ Soil Water Management/Conservation Agriculture/ Farming Systems Management/Forage Production	12.	Agronomy and Agricultural Meteorology
39.	Agricultural Meteorology	Masters degree in Agriculture/ Agricultural Meteorology/ Agricultural Physics with specialization in Agricultural Meteorology		

Disciplines		Qualification	NET – Pass Subject Criteria	
40.	Pedology	Masters degree in Agriculture/Soil Science/Agricultural Chemistry with specialization in Soil Genesis Survey and classification	13.	Soil Science
41.	Soil Science - Soil Chemistry / Fertility / Microbiology	Masters degree in Agriculture/Soil Science with specialization in Soil Fertility/Soil Chemistry/Soil Microbiology		
42.	Soil Science - Soil Physics/Soil and Water Conservation	Masters degree in Agriculture/Soil Science/Agricultural Chemistry/Agricultural Physics with specialization in Soil Physics and Soil and Water Conservation		
43.	Agricultural Chemistry	Masters degree in Agriculture/Agricultural Chemistry or Chemistry with specialization in Agricultural Chemistry and Chemicals		
44.	Home/ Family Resource Management	Masters degree in Home Science/Home Management/ Family Resource Management or Home Science related subjects	14.	Home Science and Family Resource management
45.	Agricultural Economics	Masters degree in Agriculture Economics/Agricultural Marketing/Dairy Science/Animal Veterinary/Fish Sciences with specialization in any of the above subjects.	15.	Agricultural Economics and Agricultural Business management
46.	Agricultural Extension	Masters degree in Agriculture/ Veterinary/ Fisheries/Dairy or Home Science with specialization in Agricultural Extension/ Agricultural Communication.	16.	Agricultural Extension
47.	Home Science Extension	Masters degree in Agriculture/Veterinary/ Dairy/ Fisheries/Home Science with specialization in Home Science Extension.		
48.	Veterinary Extension	Masters degree in Agriculture/Veterinary/ Dairy/ Fisheries/Home Science with specialization in Veterinary Extension		

Disciplines		Qualification	NET – Pass Subject Criteria	
49.	Agricultural Statistics	Masters degree in Statistics/ Agriculture/ Veterinary Sciences/Dairy Science/Animal Science/Mathematics with specialization in Agricultural Statistics	17.	Statistics and Computer Application
50.	Farm machinery and Power	Masters degree in Agricultural Engineering/ Mechanical/Industrial Engineering with specialization in Farm Machinery and Power	18.	Farm Machinery and Energy
51.	Agricultural Structures and Process Engineering	Masters degree in Agricultural Engineering with specialization in Agricultural Structures and Process Engineering	19.	Post Harvest Engineering and Technology
52.	Soil and Water Conservation Engineering	Masters degree in Agricultural Engineering with specialization in Soil and Water Conservation/Irrigation & Drainage/Water Resources Management (B.Tech stream) /Water Resource Engineering/Water Sciences & Technology (B.Tech stream)/M.E./M.Tech in Hydrology or Masters degree in Civil Engineering with specialization in Water Resources/Hydrology/Hydraulics (B.Tech stream).	20.	Land and Water Engineering
53.	Food Science and Technology	Masters degree in Food Science/ Food Technology/ Food Science and Technology/ Post Harvest Technology	21.	Food Science and Technology
54.	Dairy Chemistry	Masters degree in Dairy/ Veterinary/Animal Sciences with specialization in Dairy Chemistry	22.	Dairy Basic Sciences
55.	Dairy Microbiology	Masters degree in Dairy/ Veterinary/Animal Sciences with specialization in Dairy Microbiology		
56.	Dairy Technology	Masters degree in Dairy Technology or Masters degree in Dairy Science/Animal Product Technology/Food Technology with specialization in Dairy Technology	23.	Dairy Technology
57.	Dairy Engineering	Masters degree in Dairy Engineering/Dairy and Food Engineering with specialization in Dairy Engineering		

Disciplines		Qualification	NET – Pass Subject Criteria	
58.	Mechanical Engineering	Masters degree in Mechanical Engineering	24.	Basic Engineering*
59.	Electrical Engineering	Masters degree in Electrical Engineering/ Agricultural Engineering with specialization in Electrical Engineering		
60.	Electronics and Instrumentation	Masters degree in Engineering/ Technology/Agricultural Engineering/ Physics with specialization in Electronics/Instrumentation		
61.	Textile Chemistry	Masters degree in Textile Chemistry	25.	Textile Science*
62.	Textile Manufacture	Masters degree in Textile Manufacture/ Technology		

*This group shall be available in ARS-Mains of 2010 as it is being phased out subsequent examinations for alternate mode of recruitment.

Proposed nomenclature of ARS disciplines:

1. CROP SCIENCES

S.No.	Discipline	S.No.	Discipline
1.	Genetics and Plant Breeding	6.	Agricultural Entomology
2.	Economic Botany and Plant Genetic Resources	7.	Plant Biochemistry
3.	Seed Science and Technology	8.	Plant Physiology
4.	Plant Pathology	9.	Agricultural Biotechnology
5.	Nematology	10.	Agricultural Microbiology

2. HORTICULTURE

S.No.	Discipline
1.	Vegetable Science
2.	Fruit Science
3.	Floriculture and Land Scaping
4.	Spices, Plantation and Medicinal and Aromatic Plants

3. ANIMAL SCIENCES

S.No.	Discipline	S. No.	Discipline
1.	Animal Physiology	11.	Livestock Production Management
2.	Animal Biochemistry	12.	Livestock Product Technology
3.	Animal Biotechnology	13.	Poultry Science
4.	Animal Rep. and Gynaecology	14.	Veterinary Public Health
5.	Animal Nutrition	15.	Veterinary Pathology
6.	Animal Genetics and Breeding	16.	Veterinary Pharmacology
7.	Veterinary Parasitology	17.	Dairy Technology
8.	Veterinary Microbiology	18.	Dairy Microbiology
9.	Veterinary Medicine	19.	Dairy Chemistry
10.	Veterinary Surgery	20.	Dairy Engineering

4. FISHERY SCIENCES

S. No.	Discipline	S. No.	Discipline
1.	Aquaculture	4.	Fish Nutrition
2.	Fisheries Resource Management	5.	Fish Health
3.	Fish Processing Technology	6.	Fish Genetics and Breeding

5. NATURAL RESOURCE MANAGEMENT

S. No.	Discipline	S. No.	Discipline
1.	Agricultural Chemicals	4.	Agricultural Meteorology
2.	Agroforestry	5.	Soil Sciences
3.	Agronomy	6.	Environmental Sciences

6. SOCIAL SCIENCES

S. No.	Discipline	S. No.	Discipline
1.	Home Sciences	4.	Agricultural Extension
2.	Agricultural Economics	5.	Agricultural Statistics
3.	Agricultural Business Management		

7. ENGINEERING AND TECHNOLOGY

S. No.	Discipline	S. No.	Discipline
1.	Farm Machinery and Power	4.	Agricultural Process Engineering
2.	Agricultural Structures and Environmental Management	5.	Food Technology
3.	Land and Water Management Engineering		

PROPOSED ARS DISCIPLINES AND QUALIFICATIONS

Discipline (s)		Proposed Qualification (s)
1.	Genetics and Plant Breeding	Masters degree in Agricultural Botany / Plant Breeding or Genetics or Genetics and Plant Breeding
2.	Economic Botany and Plant Genetic Resources	Masters degree in Agriculture/Botany/Horticulture with specialization in Agriculture Botany/Economic Botany /Plant Genetic Resources
3.	Seed Science and Technology	Masters degree in Seed Science/Seed Technology or Seed Science and Technology.
4.	Plant Pathology	Masters degree in Plant Pathology / Mycology and Plant Pathology.
5.	Nematology	Masters degree in Agricultural Entomology / Plant Pathology with specialization in Nematology.
6.	Agricultural Entomology	Masters degree in Entomology / Agricultural Entomology.
7.	Plant Biochemistry	Masters degree in Plant Biochemistry / Agricultural Biochemistry
8.	Plant Physiology	Masters degree in Plant Physiology
9.	Agricultural Biotechnology	Masters degree in Agricultural Biotechnology / Plant Biotechnology / Plant Molecular Biology
10.	Agricultural Microbiology	Masters degree in Agricultural Microbiology / Microbiology
11.	Vegetable Science	Masters degree in Olericulture* / Vegetable Sciences /Agriculture or Horticulture with specialization in Vegetable Sciences
12.	Fruit Science	Masters degree in Pomology* / Agricultural or Horticulture with specialization in Fruit Sciences
13.	Floriculture and Landscaping	Masters degree in Floriculture / Agriculture or Horticulture with specialization in Floriculture and Landscaping
14.	Spices/ Plantation and Medicinal and Aromatic plants	Masters degree in Agriculture / Horticulture with specialization in Spices / Plantation Crops and / or in Medicinal and Aromatic plants
15.	Animal Physiology	Masters degree in Veterinary / Animal Sciences with specialization in Animal Physiology
16.	Animal Biochemistry	Masters degree in Veterinary/ Animal Sciences /Dairy/ Fishery Sciences with specialization in Biochemistry
17.	Animal Biotechnology	Masters degree in Veterinary / Animal / Fishery Sciences with specialization in Biotechnology

Discipline (s)		Proposed Qualification (s)
18.	Animal Reproduction and Gynacecology	Masters degree in Veterinary / Animal Sciences with specialization in Animal Reproduction and Gynacecology
19.	Animal Nutrition	Masters degree Veterinary /Animal Sciences with specialization in Animal Nutrition.
20.	Animal Genetics and Breeding	Masters degree in Veterinary / Animal Sciences with specialization in Animal Genetics and Breeding.
21.	Veterinary Parasitology	Masters degree in Veterinary Parasitology
22.	Veterinary Medicine	Masters degree in Veterinary Medicine/Veterinary Preventive Medicine/Veterinary Clinical Medicine
23.	Veterinary Surgery	Masters degree in Veterinary Surgery
24.	Veterinary Public Health	Masters degree in Veterinary Public Health / Epidemiology
25.	Veterinary Pathology	Masters degree in Veterinary Pathology
26.	Veterinary Pharmacology	Masters degree in Veterinary Pharmacology and Toxicology / Veterinary Pharmacology
27.	Veterinary Microbiology	Masters degree in Veterinary Sciences with specialization in Microbiology/Bacteriology/Virology/ Mycology/Immunology.
28.	Livestock Products Technology	Masters degree in Veterinary / Animal Sciences with specialization in Livestock Products Technology.
29.	Livestock Production Management	Masters degree in Veterinary / Animal Sciences with specialization in Livestock Production Management / Animal Husbandry.
30.	Poultry Science	Masters degree in Poultry / Veterinary / Animal Sciences with specialization in Poultry Science.
31.	Dairy Technology	Masters degree in Dairy Technology / Dairy Science/Animal Product Technology with specialization in Dairy Technology.
32.	Dairy Microbiology	Masters degree in Dairy Microbiology / Veterinary /Animal Sciences with specialization in Dairy Microbiology
33.	Dairy Chemistry	Masters degree in Dairy Chemistry / Veterinary/Animal Sciences with specialization in Dairy Chemistry.
34.	Dairy Engineering	Masters degree in Dairy Engineering / Dairy and Food Engineering.
35.	Aquaculture	Masters degree in Aquaculture / Fishery Science*/ Marine Biology*/ Aquatic Biology* with specialization in mariculture / Aquatic Environment Management* / Aquatic Ecology*/ Inland Aquaculture.
36.	Fisheries Resource Management	Masters degree in Fisheries Resource Management / Fishery Sciences/ Marine Biology*/Aquatic Biology* with specialization in Fisheries Resource Management/ Fish Population Dynamics/ Fishery Hydrography*/ Ecosystem Management.

Discipline (s)		Proposed Qualification (s)
37.	Fish Processing Technology	Masters Degree in Fish Processing Technology / Fishery Sciences* / Post Harvest Technology / Industrial Fisheries with specialization in Fish Harvest and Processing.
38.	Fish Nutrition	Masters degree in Fishery Sciences with specialization in Fish Nutrition and Fish Physiology* / Feed Technology / Fish Nutrition and Biochemistry*.
39.	Fish Health	Masters degree in Fishery Sciences / Marine Biology* with specialization in Fish Health / Fish Ecosystem and Aquatic Environment* / Fish Pathology and Microbiology / Aquatic Environment Management*.
40.	Fish Genetics and Breeding	Masters degree in Fishery Sciences / Marine Biology* with specialization in Fish Genetics and Breeding / Fish Biotechnology.
41.	Agricultural Chemicals	Masters degree in Agricultural Chemicals / Organic Chemistry with specialization in Agricultural Chemicals.
42.	Agroforestry	Masters degree in Forestry*/Agroforestry/Botany* / Agronomy / Horticulture with specialization in Agroforestry.
43.	Agronomy	Masters degree in Agronomy
44.	Agricultural Meteorology	Masters degree in Agricultural Meteorology/ Agricultural Physics* with specialization in Agricultural Meteorology
45.	Environmental Science	Master's degree in Environmental Science / Agro-forestry / Agriculture with specialization in Environmental Science.
46.	Soil Sciences	Masters degree in Soil Science / Soil Science and Agricultural Chemistry*.
47.	Home Science	Masters degree in Home Science with specialization in Family Resource Management / Textile and Clothing / Child Development / Foods and Nutrition.
48.	Agricultural Economics	Masters degree in Agricultural Economics / Dairy Economics / Veterinary Economics / Fish Economics.
49.	Agricultural Business Management	Masters degree in Agricultural Business Management / Agricultural Marketing.
50.	Agricultural Extension	Masters degree in Agricultural Extension / Veterinary Extension* / Dairy Extension* / Fisheries Extension* / Agriculture Communication in Agricultural Sciences*.
51.	Agricultural Statistics	Masters degree in Agricultural Statistics.
52.	Farm machinery and Power	Masters degree in Agricultural Engineering / Mechanical Engineering with specialization in Farm Machinery and Power
53.	Agricultural Structure and Environmental Management	Masters degree in Agricultural Engineering with specialization in Agricultural Structures Process Engineering / Aquaculture Engineering

Discipline (s)		Proposed Qualification (s)
54.	Land and Water Management Engineering	Masters degree in Agricultural Engineering / Civil Engineering with specialization in Soil and Water Conservation/Irrigation & Drainage/Water Resources / Hydrology.
55.	Agricultural Process Engineering	Masters degree in Agricultural Engineering with specialization in Agricultural Process Engineering / Food Process Engineering / Dairy Engineering.
56.	Food Technology	Masters degree in Food Science/ Food Technology/ Food Science and Technology/Post Harvest Technology

ANNEXURE – IV

Proposed Eligibility Qualifications for Direct Recruitments for various posts in ICAR through lateral entry

Name of Post: **Senior Scientist**

Existing ICAR Qualifications	Revised UGC Qualifications for comparable Posts	Proposed Qualifications
<u>SENIOR SCIENTIST</u> (Pay Scale of ₹ 12000-18300)	<u>ASSOCIATE PROFESSOR</u> (Pay Band of ₹ 37400-67000 with AGP of ₹ 9000)	(Pay Band-4 of ₹ 37400-67000 with RGP of ₹ 9000)
Essential		Essential
a) For Disciplines other than Engineering subject		a) For Disciplines other than engineering subject.
<p>Doctoral degree in relevant subject including relevant basic sciences with 4 years experience in the relevant subject as Scientist / Lecturer / Extension Specialist or in an equivalent position in the pay scale of ₹ 8000-13500 having made contribution to research / teaching / extension education as evidenced by published work / innovations.</p> <p style="text-align: center;">OR</p> <p>Doctoral degree in the relevant subject including relevant basic sciences with 4 years experience of high quality post-doctoral research in an institution of repute, evidenced by publications in high impact / renowned journals.</p>	<p>i. Good academic record with a Ph.D. Degree in the concerned/allied/relevant disciplines.</p> <p>ii. A Master’s Degree with at least 55% marks (or an equivalent grade in a point scale wherever grading system is followed).</p> <p>iii. A minimum of eight years of experience of teaching and/or research in an academic/research position equivalent to that of Assistant Professor in a University, College or Accredited Research Institution/industry excluding the period of Ph.D. research with evidence of published work and a minimum of 5 publications as books and/or research/policy papers.</p> <p>iv. Contribution to educational innovation, design of new curricula and courses, and technology – mediated teaching learning process with evidence of having guided doctoral candidates and research students.</p> <p>v. A minimum score as stipulated in the Academic Performance Indicator (API) based Performance Based Appraisal System (PBAS), set out in this Regulation in Appendix III.</p>	<p>Doctoral degree in relevant subject with 8 years experience in the relevant subject as Scientist / Lecturer / Extension Specialist or in an equivalent position in the pay band-3 of ₹ 15600-39100 with Grade Pay of ₹ 5400 / ₹ 6000 / ₹ 7000/ ₹ 8000 but 2 years RGP of ₹ 8,000 in the PB ₹ 15600-39100 having made contribution to research / teaching / extension education as evidenced by published work / innovations and impact.</p>

Existing ICAR Qualifications	Revised UGC Qualifications for comparable Posts	Proposed Qualifications
<p>b) For Engineering disciplines</p> <p>Doctoral degree in relevant engineering subject with 4 years experience as Scientist / Lecturer / Extension Specialist or in an equivalent position in the pay scale of ₹ 8000-13500 having made contribution to research / teaching / extension education as evidenced by published work / innovations.</p> <p style="text-align: center;">OR</p> <p>Doctoral degree in the relevant subject including relevant basic sciences with 4 years experience of high quality post-doctoral research in an institution of repute, evidenced by publications in high impact / renowned journals.</p> <p style="text-align: center;">OR</p> <p>Master's degree in the relevant engineering subject with 8 years experience as Scientist / Lecturer / Extension Specialist or in an equivalent position in the pay scale of ₹ 8000-13500 having made contribution to research / teaching / extension education as evidenced by published work / innovations.</p>	<p>Associate Professor (in IIT) (Minimum Pay in the PB-4 to be fixed at ₹.42,800)</p> <p>Essential</p> <p>(a) First class Ph. D degree.</p> <p>(b) A minimum of 6 years teaching/research/ professional experience of which 3 years should be at the level of Assistant Professor, Senior Scientific Officer/Senior Design Engineer in a research organisation or industry as on the date of application. The candidate should have demonstrated adequate experience of independent research in terms of guidance of M. Tech and Ph. D students, publications in reputed journals and conferences, patents, laboratory/course development and/or other recognised relevant professional activities.</p>	<p>b) For engineering disciplines.</p> <p>Doctoral degree in relevant engineering subject with 6 years experience as Scientist / Lecturer / Extension Specialist or in an equivalent position in the pay band-3 of ₹ 15600-39100 with Grade Pay of ₹ 5400 / ₹ 6000 / ₹ 7000 / ₹ 8000 having made contribution to research / teaching / extension education as evidenced by published work / innovations and impact.</p> <p style="text-align: center;">OR</p> <p>Master's degree in the relevant engineering subject with 10 years experience as Scientist / Lecturer / Extension Specialist or in an equivalent position in the pay band-3 of ₹ 15600-39100 with Grade Pay of ₹ 5400/ ₹ 6000 / ₹ 7000 / ₹ 8000 but 2 years RGP of ₹ 8,000 in the PB ₹ 15600-39100 having made contribution to research / teaching / extension education as evidenced by published work / innovations and impact.</p>

Existing ICAR Qualifications	Revised UGC Qualifications for comparable Posts	Proposed Qualifications
Desirable Specialisation (to be defined) Note: Specialisation (to be defined) could be made part of essential qualifications as per job requirements, if deemed necessary.		Desirable Specialisation (to be defined) Note: Specialisation (to be defined) could be made part of essential qualifications as per job requirements, if deemed necessary.

Name of Post : Principal Scientist

Principal Scientist (Pay Scale of ₹ 16400-22400)	Professor (Minimum pay of ₹ 43000 in the Pay Band of ₹ 37400-67000 with AGP of ₹ 10000)	Principal Scientist (Minimum pay of ₹ 43000 in the Pay Band of ₹ 37400-67000 with RGP of ₹ 10000)
Essential		Essential
(i) Doctoral degree in the relevant subject including relevant basic sciences. (ii) 10 years experience in research/ teaching / extension education provided 3 years experience is as a Senior Scientist (₹ 12,000-18,300) or in an equivalent position. (iii) Evidence of contribution to research/teaching/ extension education as supported by published work/innovations.	A. (i) An eminent scholar with Ph.D. qualification(s) in the concerned/allied/relevant discipline and published work of high quality, actively engaged in research with evidence of published work with a minimum of 10 publications as books and/or research/policy papers. (ii) A minimum of ten years of teaching experience in university/college, and/or experience in research at the University/National level institutions/industries, including experience of guiding candidates for research at doctoral level. (iii) Contribution to educational innovation, design of new curricula and courses, and technology – mediated teaching learning process. (iv) A minimum score as stipulated in the Academic Performance Indicator (API) based Performance Based Appraisal System (PBAS), set out in this Regulation in Appendix III.	(i) Doctoral degree in the relevant subject. (ii) 11 years experience in the relevant subject out of which at least 8 years should be as Scientist/Lecturer/Extension Specialist or in an equivalent position in the pay band-3 of ₹ 15600-39100 with Grade Pay of ₹ 5400 / ₹ 6000/ ₹ 7000 / ₹ 8000 and 3 years as a Senior Scientist or in an equivalent position in the Pay Band of ₹ 37400-67000 with Grade Pay of ₹ 8700 / ₹ 9000.

Existing ICAR Qualifications	Revised UGC Qualifications for comparable Posts	Proposed Qualifications
	<p style="text-align: center;">OR</p> <p>B. An outstanding professional, with established reputation in the relevant field, who has made significant contributions to the knowledge in the concerned/allied/relevant discipline, to be substantiated by credentials.</p>	<p>(iii) The candidate should have made contribution to research/teaching/extension education as evidenced by published work/innovations and impact.</p>
<p>Desirable : Specialisation (to be defined)</p> <p>Note: Specialisation (to be defined) could be made part of essential qualifications as per job requirements, if deemed necessary.</p>		<p>Desirable : Specialisation (to be defined)</p> <p>Note: Specialisation (to be defined) could be made part of essential qualifications as per job requirements, if deemed necessary.</p>

Name of Post : Head of Division/Head of Regional Station

Existing ICAR Qualifications	Revised UGC Qualifications for comparable Posts	Proposed Qualifications
<p>Head of the Division/Head of Regional Station (₹ 16400-22400)</p>	<p>PROFESSOR (Minimum pay of ₹ 43000 in the Pay Band of ₹ 37400-67000 with AGP of ₹ 10000)</p>	<p>(Minimum pay of ₹ 43000 in the Pay Band-4 of ₹ 37400-67000 with RGP of ₹ 10000)</p>
<p>Essential</p>		<p>Essential</p>
<p>(i) Doctoral degree in the relevant subject including relevant basic sciences.</p> <p>(ii) A Scientist in the pay scale of ₹ 16400-20,000 or in an equivalent position</p> <p style="text-align: center;">OR</p> <p>8 years experience as a Senior Scientist (₹ 12000-18300) or in an equivalent position</p> <p style="text-align: center;">OR</p> <p>An eminent Scientist having proven record of scientific contribution working in reputed organization/institute having at least 13 years experience in the relevant subject.</p> <p>(iii) Evidence of publications / activities / contributions to suggest that the candidate has a broad vision / perspective on agricultural research.</p>	<p>A.(i) An eminent scholar with Ph.D. qualification(s) in the concerned/allied/relevant discipline and published work of high quality, actively engaged in research with evidence of published work with a minimum of 10 publications as books and/or research/policy papers.</p> <p>(ii) A minimum of ten years of teaching experience in university/college, and/or experience in research at the University/National level institutions/industries, including experience of guiding candidates for research at doctoral level.</p> <p>(iii) Contribution to educational innovation, design of new curricula and courses, and technology – mediated teaching learning process.</p> <p>(iv) A minimum score as stipulated in the Academic Performance Indicator (API) based Performance Based Appraisal System (PBAS), set out in this Regulation in Appendix III.</p> <p style="text-align: center;">OR</p> <p>B. An outstanding professional, with established reputation in the relevant field, who has made significant contributions to the knowledge in the concerned/allied/relevant discipline, to be substantiated by credentials.</p>	<p>(i) Doctoral degree in the relevant subject.</p> <p>(ii) At least 2 years experience as Principal Scientist/ Professor or in an equivalent position in the pay band-4 of ₹ 37,400-67,000 with Grade Pay of ₹ 10000.</p> <p>(iv) Evidence of publications / activities / contributions to suggest that the candidate has a broad vision / perspective on agricultural research.</p>

Existing ICAR Qualifications	Revised UGC Qualifications for comparable Posts	Proposed Qualifications
<p>Desirable : Specialization (to be defined)</p> <p>Note: Specialisation (to be defined) could be made part of essential qualifications as per job requirements, if deemed necessary.</p>		<p>Desirable : Specialization (to be defined)</p> <p>Note: Specialisation (to be defined) could be made part of essential qualifications as per job requirements, if deemed necessary.</p>

Name of Post: Project Coordinator/Joint Directors of Institute other than IARI, IVRI, NDRI, CIFE and NAARM (National Institutes)

Project Coordinator/Joint Directors of Institute other than National Institutes) (Pay Scale of ₹ 16400-22400)	PROFESSOR (Minimum pay of ₹ 43000 in the Pay Band of ₹ 37400-67000 with AGP of ₹ 10000)	(Minimum pay of ₹ 43000 in the Pay Band - 4 of ₹ 37400-67000 with RGP of ₹ 10000)
Essential		Essential
<p>(i) Doctoral degree in the relevant subject including relevant basic sciences.</p> <p>(ii) A Scientist in the pay scale of ₹ 16,400-20,000 or in an equivalent position</p> <p style="text-align: center;">OR</p> <p>8 years experience as a Senior Scientist (₹ 12,000-18,300) or in an equivalent position</p> <p style="text-align: center;">OR</p>	<p>A.(i) An eminent scholar with Ph.D. qualification(s) in the concerned /allied/relevant discipline and published work of high quality, actively engaged in research with evidence of published work with a minimum of 10 publications as books and/or research/policy papers.</p> <p>(ii) A minimum of ten years of teaching experience in university/college, and/or experience in research at the University/National level institutions/industries, including experience of guiding candidates for research at doctoral level.</p> <p>(iii) Contribution to educational innovation, design of new curricula and courses, and technology – mediated teaching learning process.</p> <p>(iv) A minimum score as stipulated in the Academic Performance Indicator (API) based Performance Based Appraisal System (PBAS), set out in this Regulation in Appendix III.</p>	<p>(i) Doctoral degree in the relevant subject.</p> <p>(ii) At least 3 years experience as Principal Scientist/Professor or in an equivalent position in the pay band-4 of ₹ 37,400-67,000 with Grade Pay of ₹ 10000.</p> <p>(iii) Evidence of publications / activities / contributions to suggest that the candidate has a broad vision / perspective on agricultural research</p>

Existing ICAR Qualifications	Revised UGC Qualifications for comparable Posts	Proposed Qualifications
<p>An eminent Scientist having proven record of scientific contribution working in reputed organization / institute having at least 13 years experience in the relevant subject.</p> <p>(iii) Evidence of publications / activities / contributions to suggest that the candidate has a broad vision / perspective on agricultural research</p>	<p style="text-align: center;">OR</p> <p>B. An outstanding professional, with established reputation in the relevant field, who has made significant contributions to the knowledge in the concerned/allied/relevant discipline, to be substantiated by credentials.</p>	
<p>Desirable : Specialisation (to be defined) Note : Specialisation (to be defined) could be made part of essential qualifications as per job requirements, if deemed necessary.</p>		<p>Desirable : Specialisation (to be defined) Note : Specialisation (to be defined) could be made part of essential qualifications as per job requirements, if deemed necessary.</p>

Name of Post : **Assistant Director General/Directors of ICAR Institute other than IARI, IVRI, NDRI, CIFE, NAARM (National Institutes)/Joint Directors of National Institutes/Zonal Project Director**

Existing ICAR Qualifications	Revised UGC Qualifications for comparable Posts	Proposed Qualifications
<p>ADG/Directors of ICAR Institute other than National Institutes /JD of National Institutes/ZPD (Minimum pay of ₹ 17300 in the pay scale of ₹ 16400-22400)</p>	<p>PRINCIPAL (Pay Band of ₹ 37400-67000 with AGP of ₹ 10000 and Special allowance of ₹ 2000 for UG college and ₹ 3000 for PG college)</p>	<p>(Minimum pay of ₹ 43000 in the Pay Band - 4 of ₹ 37400-67000 with RGP of ₹ 10000).</p>
<p>Essential</p>		<p>Essential</p>
<p>(i) Doctoral degree in the relevant subject including relevant basic sciencest.</p> <p>(ii) At least 5 years experience as a scientist in the pay scale of ₹ 16400-20000 or in an equivalent post.</p> <p style="text-align: center;">OR</p> <p>An eminent scientist having proven record of Scientific contribution working in a reputed organisation/ institute having at least 18 years experience in the relevant subject.</p> <p>(iii) Evidence or contribution to research/ teaching/ extension education as supported by published work/innovations.</p>	<p>i. A Master’s Degree with at least 55% marks (or an equivalent grade in a point scale wherever grading system is followed) by a recognized University.</p> <p>ii. A Ph.D. Degree in concerned/allied/relevant discipline(s) in the institution concerned with evidence of published work and research guidance.</p> <p>iii. Associate Professor/Professor with a total experience of fifteen years of teaching/research/administration in Universities, Colleges and other institutions of higher education.</p> <p>iv. A minimum score as stipulated in the Academic Performance Indicator (API) based.</p> <p>Performance Based Appraisal System (PBAS), as set out in this Regulation in Appendix III for direct recruitment of Professors in Colleges.</p>	<p>i. Doctoral degree in the relevant subject.</p> <p>ii. At least 5 years experience as Principal Scientist/Professor or in an equivalent position in the pay band-4 of ₹ 37400-67000 with grade pay of ₹ 10000.</p> <p style="text-align: center;">OR</p> <p>An eminent scientist having proven record of Scientific contribution working in a reputed organisation/institute having at least 15 years experience in the relevant subject.</p> <p>iii. Evidence of publication/activities contribution to suggest that</p>

Existing ICAR Qualifications	Revised UGC Qualifications for comparable Posts	Proposed Qualifications
		<p>the candidate has a broad vision/perspective on agricultural research.</p> <p>iv. Having successfully completed NAARM's Research Management course.</p>
<p>Desirable :</p> <p>i. Specialisation (to be defined).</p> <p>ii. Experience in research management with evidence of scientific leadership, vision / perspective on agricultural research</p> <p>Note: Specialisation (to be defined) could be made part of essential qualifications as per job requirements, if deemed necessary.</p>		<p>Desirable :</p> <p>Specialisation (to be defined)</p> <p>Note: Specialisation (to be defined) could be made part of essential qualifications as per job requirements, if deemed necessary.</p>

Name of Post : Deputy Director General/Directors of NAARM/National Director

Existing ICAR Qualifications	Revised UGC Qualifications for comparable Posts	Proposed Qualifications
<p>DDG/Director NAARM/ND (₹ 25000/- fixed)</p>		<p>(₹ 75000/- fixed)</p>
<p>Essential</p> <p>(i) A Doctoral degree in the relevant subject including relevant basic sciences.</p> <p>(ii) An eminent Scientist /Teacher having at least 8 years experience in the grade of Principal Scientist (₹16,400-22,400) or in an equivalent position out of which 3 years experience should be in a Research Management Position¹ or in an equivalent position or atleast 6 years experience in any of the following positions.</p> <p>(a) Heads of Divisions at ICAR Institutes. (b) Heads of Regional Stations of ICAR Institutes. (c) Project Coordinator. (d) Zonal Coordinator. (e) National Coordinator, NAIP (f) Joint Directors of Institutes other than IARI IVRI/NDRI/CIFE and NAARM.</p> <p style="text-align: center;">OR</p> <p>An eminent Scientist having proven record to scientific contribution working in a reputed organisation/ Institutes having atleast 21 years experience in the relevant subject, out of which 3 years experience should be in a Research Management Position¹ or in an equivalent position or atleast 6 years experience in any of the following positions.</p>		<p>Essential</p> <p>(i) A Doctoral degree in the relevant subject.</p> <p>(j) An eminent Scientist /Teacher having at least 8 years experience in the grade of Principal Scientist/ Professor or in an equivalent position in pay band -4 with grade pay of ₹ 10000 out of which 3 years experience should be in a Research Management Position¹ or in an equivalent position or atleast 6 years experience in any of the following positions.</p> <p>(a) Heads of Divisions at ICAR Institutes. (b) Heads of Regional Stations of ICAR Institutes. (c) Project Coordinator. (d) Zonal Coordinator (service rendered prior to 27.01.2009). (e) National Coordinator, NAIP. (f) Joint Directors of Institutes other than IARI IVRI/NDRI/CIFE and NAARM.</p> <p style="text-align: center;">OR</p> <p>An eminent Scientist having proven record to scientific contribution working in a reputed organisation/ Institutes having atleast 21 years experience in the relevant subject, out of which 3 years experience should be in a Research Management Position¹ or in an equivalent position or atleast 6 years experience in any of the following positions.</p> <p>(a) Heads of Divisions at ICAR Institutes.</p>

Existing ICAR Qualifications	Revised UGC Qualifications for comparable Posts	Proposed Qualifications
<p>(a) Heads of Divisions at ICAR Institutes.</p> <p>(b) Heads of Regional Stations of ICAR Institutes.</p> <p>(c) Project Coordinator.</p> <p>(d) Zonal Coordinator.</p> <p>(e) National Coordinator, NAIP</p> <p>(f) Joint Directors of Institutes other than IARI/IVRI/NDRI/CIFE and NAARM.</p> <p>(iii) Evidence of contributions to research/ teaching/ extension education as supported by published work/innovations</p>		<p>(b) Heads of Regional Stations of ICAR Institutes.</p> <p>(c) Project Coordinator.</p> <p>(d) Zonal Coordinator (service rendered prior to 27.01.2009).</p> <p>(e) National Coordinator, NAIP</p> <p>(f) Joint Directors of Institutes other than IARI/IVRI/NDRI/CIFE and NAARM.</p> <p>(iii) Evidence of contributions to research/ teaching/ extension education as supported by published work/innovations and impact.</p>
<p>Desirable :</p> <p>The candidate should have demonstrated scientific leadership and skill in research management with a broad vision and perspective of agricultural research.</p> <p>Note1: If a candidate has less than 3 years experience in a research management position and has experience of working in position/s listed at (ii) (a) to (f) then a weightage equal to half of the service rendered in position/s listed at (ii) (a) to (f) shall be added to the candidate's actual RMP experience to determine eligibility for these posts</p>		<p>Desirable :</p> <p>The candidate should have demonstrated scientific leadership and skill in research management with a broad vision and perspective of agricultural research.</p> <p>Note1: If a candidate has less than 3 years experience in a research management position and has experience of working in position/s listed at (ii) (a) to (f) then a weightage equal to half of the service rendered in position/s listed at (ii) (a) to (f) shall be added to the candidate's actual RMP experience to determine eligibility for these posts.</p>

Name of Post: Directors of IARI, IVRI, NDRI, CIFE

Existing ICAR Qualifications	Revised UGC Qualifications for comparable Posts	Proposed Qualifications
<p>Directors of IARI/IVRI/NDRI/CIFE (₹ 25000/- fixed)</p>		<p>(₹ 75000/- fixed + ₹ 5000 p.m. as Special Allowance)</p>
<p>Essential :</p> <p>i. A Doctoral degree in the relevant subject including relevant basic sciences.</p> <p>ii. An eminent Scientist /Teacher having at least 8 years experience in the grade of Principal Scientist (₹16,400-22,400) or in an equivalent position out of which 3 years experience should be in a Research Management Position¹ or in an equivalent position or atleast 6 years experience in any of the following positions.</p> <p>(a) Heads of Divisions at ICAR Institutes.</p> <p>(b) Heads of Regional Stations of ICAR Institutes.</p> <p>(c) Project Coordinator.</p> <p>(d) Zonal Coordinator.</p> <p>(e) National Coordinator, NAIP</p> <p>(f) Joint Directors of Institutes other than IARI IVRI/NDRI/CIFE and NAARM.</p> <p style="text-align: center;">Or</p> <p>An eminent Scientist having proven record to scientific contribution working in a reputed organisation/ Institutes having atleast 21 years experience in the relevant subject, out of which 3 years experience should be in a Research Management Position¹</p>		<p>Essential :</p> <p>i. A Doctoral degree in the relevant subject</p> <p>ii. An eminent Scientist /Teacher having at least 8 years experience in the grade of Principal Scientist/Professor or in an equivalent position in pay band -4 with grade pay of ₹ 10000 out of which 3 years experience should be in a Research Management Position¹ or in an equivalent position or atleast 6 years experience in any of the following positions.</p> <p>(a) Heads of Divisions at ICAR Institutes.</p> <p>(b) Heads of Regional Stations of ICAR Institutes.</p> <p>(c) Project Coordinator.</p> <p>(d) Zonal Coordinator (service rendered prior to 27.01.2009).</p> <p>(e) National Coordinator, NAIP.</p> <p>(f) Joint Directors of Institutes other than IARI IVRI/NDRI/CIFE and NAARM.</p> <p style="text-align: center;">Or</p> <p>An eminent Scientist having proven record to scientific contribution working in a reputed organisation/ Institutes having atleast 21 years experience in the relevant subject, out of which 3 years experience should be in a Research Management Position¹ or in an equivalent position or atleast 6 years experience in any of the following positions.</p>

Existing ICAR Qualifications	Revised UGC Qualifications for comparable Posts	Proposed Qualifications
or in an equivalent position or atleast 6 years experience in any of the following positions.		
<ul style="list-style-type: none"> (g) Heads of Divisions at ICAR Institutes. (h) Heads of Regional Stations of ICAR Institutes. (i) Project Coordinator. (j) Zonal Coordinator. (k) National Coordinator, NAIP (l) Joint Directors of Institutes other than IARI/IVRI/NDRI/CIFE and NAARM. (iii) Evidence of contributions to research/ teaching/ extension education as supported by published work/innovations 		<ul style="list-style-type: none"> (a) Heads of Divisions at ICAR Institutes. (b) Heads of Regional Stations of ICAR Institutes. (c) Project Coordinator. (d) Zonal Coordinator(service rendered prior to 27.01.2009). (e) National Coordinator, NAIP (f) Joint Directors of Institutes other than IARI/IVRI/NDRI/CIFE and NAARM. (iii) Evidence of contributions to research/ teaching/ extension education as supported by published work/innovations and impact.
<p>Desirable :</p> <p>The candidate should have demonstrated scientific leadership and skill in research management with a broad vision and perspective of agricultural research.</p> <p>Note1: If a candidate has less than 3 years experience in a research management position and has experience of working in position/s listed at (ii) (a) to (f) then a weightage equal to half of the service rendered in position/s listed at (ii) (a) to (f) shall be added to the candidate's actual RMP experience to determine eligibility for these posts.</p>		<p>Desirable :</p> <p>The candidate should have demonstrated scientific leadership and skill in research management with a broad vision and perspective of agricultural research.</p> <p>Note1: If a candidate has less than 3 years experience in a research management position and has experience of working in position/s listed at (ii) (a) to (f) then a weightage equal to half of the service rendered in position/s listed at (ii) (a) to (f) shall be added to the candidate's actual RMP experience to determine eligibility for these posts.</p>

Comparison of career progression opportunities as per V and VI CPC policies

V CPC Policies			VI CPC Policies		
GRADE	Promotion through CAS	Direct Recruitment to the post of SS/PS	GRADE	Promotion Through CAS*	Direct Recruitment to the Post of SS/PS (Proposed)
Scientist to Sr. scientist (in the pay scale of ₹ 12000-18300)	9 Years	4 years	Scientist to Sr. scientist (with Ph. D degree) (In PB-4 of ₹ 37400-67000 with RGP of ₹ 9000)	12 Years	8 years in the grade pay of ₹ 5400/6000/7000 /8000
Sr. Scientist to Pr. Scientist (in the pay scale of ₹ 16400-22400)	8 years	Minimum 10 years experience out of which atleast 3 years should be as Sr. Scientist or in an equivalent position.	Sr. Scientist to Pr. Scientist (In PB-4 of ₹ 37400-67000 with RGP of ₹ 10000)	3 years	Minimum 11 years of which 8 years should be in the pay band-3 of ₹ 15600-39100 with Grade Pay of ₹ 5400 /₹ 6000/ ₹ 7000/₹ 8000 and 3 years as a Senior Scientist or in an equivalent position in the pay band of ₹ 37400-67000 with Grade Pay of ₹ 8700/₹ 9000.

***Promotion through CAS effective from 1.1.2009 under VI CPC policies**

Grade	With Ph. D	With M.Phil/M.Tech/ M.Sc(AG) M.V.Sc./M.F.Sc.	Without Ph. D/ M.Phil etc.
A Scientist should have completed service in the grade pay of ₹ 6000 to move up to Grade pay of ₹ 7000	4 years	5 years	6 years
A Scientist should have completed service in the grade pay of ₹ 7000 to move up to Grade pay of ₹ 8000.	5 years	5 years	5 years
A Scientist should have completed service in the grade pay of ₹ 8000 to move up to Grade pay of ₹ 9000.	3 years	3 years	3 years
Total service required for promotion upto the grade pay of ₹ 9000.	12 years	13 years	14 years
A Sr. Scientist should have completed service in the grade pay of ₹ 9000 to move up to Grade pay of ₹ 10000.	3 years	No promotion till Ph. D not completed	No promotion till Ph. D not completed
Total service required for promotion upto the grade pay of ₹ 10000.	15 years	-	-

Annexure – V

The existing scientific and RMP positions, proposed Score-Card and short-listing criteria

Non RMP Position	
1.	Scientist
2.	Senior Scientist
3.	Principal Scientist
4.	Head of Division (HOD) Category I, HOD's (This includes all HOD of Institutes other than of Deemed Universities)
Semi- RMP Position	
5.	Head of Regional Stations (HRS) / Centres
6.	HOD's of National Institutes (Deemed Universities)
7.	Joint Directors of Institutes other than DU's (e.g. ICAR Res. Complex, Barapani)
8.	Project Coordinators
RMP Position	
9.	Directors
10.	Project Directors
11.	Joint Directors of NI (DU)
12.	Zonal Project Directors
13.	Assistant Director General
14.	Deputy Director General
15.	Directors of National Institute / DU's
16.	National Director

(i) Proposed revised Score Card in Summary

Criteria		SS	PS	HOD, (Cat.I)/ HOD, (Cat.II)	PC/NC/ HRS/ JD	PD/DIR/ DD/JDNI/ ADG/	DNI/ ND/ DDG
A	Academic Qualifications	15	8	2	2	2	2
B	Employment record and experience	3	3	5	5	10	10
C	Experience in the relevant field of Post advertised	8	5	6	6	6	6
D	Service in remote areas / regional centers*	6	5	3	3	3	2
E	In-service Awards / Recognitions	5	5	10	10	12	12
F	Teaching/Research/Extension/ Service Function	15	15	10	10	5	5
G	Special Attainments / Innovations	6	8	10	10	10	10
H	Externally funded projects/Resource Generation	4	5	5	5	5	5
I	Summer / Winter school/ Refresher Course/Symposia/ Conference etc.	2	2	7	7	3	3
J	International exposure	2	3	5	5	5	5
K	Publications /including papers in refereed journals	20	25	20	20	15	15
L	Other achievements of practical importance	10	10	6	6	6	6
M	Institution building	2	2	5	5	7	8
N	Inter-institutional/Inter-disciplinary projects	2	4	4	4	6	6
O	Management Experience	0	0	2	2	5	5
	Grand Total	100	100	100	100	100	100

* Proposed benefit has to be availed only once during the service.

- (ii) **Proposed Criteria for Short-listing of candidates to be called for interview**
 First ten ranking candidates for each post subject to a minimum of 50% and 60% marks in the screening as per scorecard shall be eligible for interview call to Non-RMP and RMP posts respectively.
- (iii) The final selection shall be made by giving weightage to Score Card marks and interview marks in the following manner:

Category of Post		Scorecard marks	Interview marks	Total
Non-RMP Posts & Semi RMP Posts				
1.	Senior Scientist	60	40	100
2.	Principal Scientists	60	40	100
3.	HOD / HRS	50	50	100
4.	HOD NI / NC / JD / PC	50	50	100
RMP Posts				
5.	Directos / PD / ADG / JD NI / ZPD	40	60	100
6.	DDG / Director ND / ND	40	60	100