

Policy, Research and Training Department
(Bureau of Indian Standards)

Our Ref: PRT/R/5:1

30.09.2020

Subject: Revised Guidelines for Action Research

In supersession to Guidelines for Action Research dated 29 Apr 2020 hosted on BIS Intranet, revised Guidelines for Action Research dated 30 Sep 2020 is enclosed for information of all concerned.

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Sc-D

H(PRTD)

Circulated to: All Deptts. at HQ/ROs/BOs/Labs/NITS (through BIS Intranet)



Guidelines for Action Research

1. Introduction

Action Research is the process of systematic actions carried out by professionals, using the techniques of research, studying their own practices, in order to suggest improvements in existing processes and/or creation of new processes through innovative ideas and critical analysis. These guidelines have been established to translate the Research Policy of BIS into action w.r.t. the activities in which the officers are engaged in. It would facilitate creation of a vibrant atmosphere of Action Research in the Bureau, where fertile minds can work on generation of knowledge blending with the experience gained and expectations of the stakeholders. By institutionalizing research-oriented approach to work, the Bureau aspires to inculcate good practices and scientific approach towards finding solutions, in day to day work, thereby living up to the expectations from a Scientific Organization.

2. Objective

To develop evidence-based strategies and mechanisms for the standards formulation, standard promotion, conformity assessment, registration and consumer out-reach in BIS.

3. Eligibility

Following officials of BIS are eligible for taking up Action Research under the Scheme:

- a) Scientific Cadre Officers of level Scientist-B to Scientist-E.
- b) Laboratory Cadre, and
- c) Administrative & Finance Cadre

Note 1 : It is expected that all officers under 3 a) would take up one Action Research Project in a year related to their assigned work. Other officials as at 3 b) & c) and also Scientific Cadre Officers of level Scientist-F & G may at their choice propose to undertake Action Research projects.

Note 2 : As the Action Research aims to supplement the work of BIS and is dynamic in nature, the officials due to superannuate within two-year period may not undertake any new Action Research Project.

Note 3: In the event of transfer to a different activity/location, the officer would be allowed continue to work on the approved Action Research Project till its completion, within the time frame, from the new place of posting/location.

4. Areas of Action Research

Broad areas in which Action Research could be taken up is given below as illustrative reference:

- a) Relevance of existing provisions of standards w.r.t the requirements & limits, technological advancement, varieties covered, raw materials, components, packaging & marking, etc.;
- b) Analysis of a set of standards in terms of their strengths and weaknesses vis-à-vis ISO or other international standards and reasons for users' preference for international standards;
- c) Test Methods & equipment, consumables, prescribed/required as per the standard(s) and the difficulties faced in meeting the same by the industries and Laboratories;
- d) Studying the quality and efficiency of the laboratory facilities in respect of a set of products with reference to the equipment, test methods etc.;

- e) Market Research in respect of a set of 4-5 products to study the impact of standards or of the absence/non-implementation of it;
- f) Study of a set of expired/surrendered licenses to study the reasons, its impact on quality of products, and remedial measures;
- g) Market survey/research to identify the areas that require standards and mandatory surveillance in view of their critical importance to the industry, trade or consumers;
- h) Meta-research on any product category standards or surveillance or testing systems. It means studying the research work/literature and identifying areas of action relevant for BIS;
- i) Study of the impact of a Management System Certification Scheme and issues involved in its effective implementation;
- j) Study and development of a model of effective engagement with consumers in respect of relevant product standards;
- k) Development of a training module, online or offline, in an area related to standardization, certification, surveillance, MSCS, lab management, standards promotion or consumer empowerment;
- l) Development of industry-specific sensitization or publicity campaign strategy.

Note : Before identifying and proposing any new area for Action Research, the proposer is expected to refer to the Knowledge Portal of BIS to ensure that the work on same or similar project has not been undertaken in the past.

5. Methodology for the Action Research

Action research should proceed in a series of steps encompassing planning, action and fact-finding about the result of action. Its process is expected to begin with serious reflection directed toward identifying a topic or topics worthy of a busy official's time and the importance of the subject. The existing information relating to the topic and/or problem, and theoretical perspectives, are gathered through review of literature or other means. Based on these inputs, clear objective(s) is (are) listed, relating them to its relevance to BIS. While selecting the Action Research Proposal, the officer should ensure that it involves undertaking some original research on his/her part aimed at bringing about improvement in Indian Standards and/or process (es) of any of the BIS activities.

Crucial phase in Action Research is that of collection of data using a variety of tools such as checklists, questionnaires, records, surveys, testing, field notes, interviews, etc. Depending upon the subject of Action Research, this may involve desktop, field or laboratory work with sampling plans. Regardless of the field of study or preference for defining data (quantitative, qualitative), accurate data collection is essential to maintaining the integrity of research. Consequences from improperly collected data include, inability to answer research questions accurately, inability to repeat and validate the study, distorted findings resulting in wasted resources, misleading other researchers to pursue fruitless avenues of investigation and compromising decisions for public policy. To ensure reasonable validity and reliability, action researchers should avoid relying on any single source of data, and triangulate with data from different sources to enhance the validity and reliability of their findings.

The data as collected/ generated during the research is to be thoroughly analysed for extracting useful information including trends and patterns in the action research data. This is followed with drawing up evidence-based conclusions and making recommendations for improvements in the existing system/standards/policies etc.

6. Approval Process – It would involve the following:

- a) The proposal for Action Research to be submitted by the BIS employee to PRTD in the prescribed Proforma, as provided at Appendix-I (Doc.No.:PRTD/AR/PF:01) through their respective HoD and Activity Head.

Note: Generally, Action Research project is to be proposed and undertaken in individual capacity. However, a team of max. 2 officials also may jointly submit the proposal with proper

justification. In such case, the senior member of the team should act as Project Coordinator and be responsible for completion of the project and submission of joint report.

- b) The proposal would be examined by PRTD and put up to the Assessment Committee, as constituted by DG,BIS.
- c) The Assessment Committee shall comprise of the following members:
 - i) Additional Director General (ADG) as Chairperson
 - ii) DDG(Cert), DDG(PRT), DDGL, DDG (Std-P&M), DDGC & DDGF as Members
 - iii) H(PRTD) as MemberSecretary.

Quorum for holding the meeting shall be 5

- d) During evaluation process, the Assessment Committee may seek clarification/additional inputs, as may be necessary, from the proposer, through personal interaction/Video/Tele-Conferencing, as appropriate, to facilitate decision.
- e) Decision by the Assessment Committee on each of the Action Research Proposal would be made on the Proforma, as provided at Appendix - II (Doc. No.:PRTD/AR/PF:02).

Note: In case a number of Action Research proposals are examined and evaluated by the Assessment Committee at a time, the decision of the Committee for each proposal may be recorded as Minutes of the meeting, and duly signed by all members of the Committee.

- f) The decision of the Assessment Committee for the Action Research proposals shall be communicated by PRTD to the concerned BIS employee(s), with a copy to respective HoD.
- g) Each approved Action Research Project (ARP) shall be provided a unique identification no. which need to be quoted in all correspondence.

7. Support from BIS for Action Research Projects - It is likely that for undertaking the Action Research activities, the officials may need administrative & financial support from BIS. These would be dealt with as given below:

- a) **Funding** – Following funding would be allowable for Action Research projects:
 - i) Purchase of books, journals, periodicals, etc. to be purchased directly by the officials after due approval. These would become the BIS property and on completion of the project, the items purchased shall be deposited with BIS Library.
 - ii) Consumables for laboratory testing may be arranged/purchased through the respective BIS Laboratories. Unused consumable, if any, should be handed over to the Labs for use/disposable, as appropriate.
 - iii) Cost of samples and testing – with prior approval of HoD or DDG(PRT), as applicable (*see 7d*)
 - iv) Cost of stationery & miscellaneous items

b) Authorization for Leave

Generally, situation of taking ‘leave’ would not arise as the work done for the Action Research Project would be considered as part of assigned duty and carried out as normal office work along with other assigned duties. However, HoD would be authorized to grant local/outstation tour permissions for up to 2 days specifically for any approved AR project. Under exceptional circumstances, the limit of 2 days may also be relaxed by the respective Activity Heads.

c) TA/DA

Officials may undertake tours within the jurisdictions of the respective BOs. For officials posted at

HQ/CL/NITS, the jurisdiction would be Delhi/NCR and Head of the concerned Department would be the Sanctioning Authority. However, in case of tour to any other RO/BO, permission of Activity Head shall to be taken with due justification to be recorded.

d) Budget & Financial Powers for Expenditure

There is budget provision for R&D expenses (code: 331) for around 474 lakhs for 2020-21. Out of this, Rs. 50 Lakh could be earmarked for Action Research Projects expenditures as covered under 7 a) above. Respective HoDs would be authorized for expenditures up to Rs. 15,000/- and DDG(PRT) would be authorized to sanction expenditure above Rs. 15,000/- and up to Rs. 50,000/-. The sanctioning authority shall satisfy itself about the justification for expenditure which should be in line with the proposal of the Action Research Project and the BIS support as approved by the Assessment Committee.

Bills of the books/ periodicals should be routed through Library of the concerned ROs/BOs where the officers are posted for debiting to the head "Library Books" and later shown as issued to the concerned officer. The tours conducted for the Project shall be booked against "R&D Expenses" and the rules governing tour may be followed.

For the purpose of Action Research, the officers are encouraged to utilize the data already available with the Bureau and/or the licensee(s)/manufacturer(s). In case the requisite data is not available, test facilities at BIS labs could be utilized for testing of sample(s) for which prior sanction shall be obtained from HoD or DDG(PRT), as the case may be, depending on the total expenditure of the project. The test request for the sample shall be generated manually in the proforma as provided at Appendix III (Doc. No.:PRTD/AR/PF:05). The samples shall be masked, as appropriate. The cost of the sample, transportation (if any) and testing shall be borne by the concerned Department/ RO/BO.

8. Training

Awareness about the Action Research Scheme would be created among the BIS Officials through formal meetings/Video Conferencing and also during the ROs/BOs Meetings and Other Meetings involving participation of officers and staff.

9. Timelines for submission of the Action Research Project Proposal

BIS officials are encouraged to submit their proposals for Action Research Project any time during the year. However, the proposals would be evaluated by the Assessment Committee on quarterly basis.

10. Submission of Report

- a) On completion of the Action Research, the Report shall be prepared and routed through the concerned HoD and Activity Head and submitted to DDG (PRT). The Report should be reader-friendly, both in its appearance and presentation. A proforma for presentation of the report (PRTD/AR/PF:03) has been provided at Appendix – IV, for guidance and may be modified to suit reporting the outcomes of individual projects.
- b) **Declaration of Original Work** - The officer would be required to furnish an undertaking that the Action Research Project undertaken by him/her is the original work, in the Proforma as provided at Appendix-V (Doc. No.:PRTD/AR/PF:04).

11. Acceptance and Actions on Report

11.1 The report of the Action Research would be placed before the Assessment Committee which may seek formal presentation from the officer either personally or through Video/Tele-Conferencing, before taking final decision on its acceptance. The Committee may suggest modifications, additional work to be done and re-submission of the report before final acceptance.

11.2 The findings of the Action Research can form the basis for new or revised standards, new Conformity Assessment Schemes, Training Modules, Publicity Campaign strategy, etc. and even policy decisions.

11.3 **Preparation of Case Studies** - The outcomes of the Action Research projects may also be documented as Case Studies, which could be used as training materials to make learning of the subject interesting and comprehensible based on factual data.

11.4 All accepted Action Research Reports, in .pdf format, would be uploaded on BIS Intranet under the Knowledge Portal and could also be published in Standards India and journals of repute.

11.5 Successful completion of Action Research Project will be one of the criteria for grading the performance of the officer as “Outstanding” in Annual Performance Assessment Report (APAR).



Doc. No. : PRTD/AR/PF:01	Issue No. : 2	Issue Date 13 May 2020	PROPOSAL FOR ACTION RESEARCH
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1.	Employee No.	
2.	Name & Designation of Officer	
3.	Qualification	
4.	Discipline with area of specialization, if any	
5.	Deptt./BO/RO & Place of Posting	
6.	Title of Action Research Project	
7.	Objective of the Project	
8.	Relevance of the Project to BIS	
9.	Background of the Project (Give current status, based on Literature Survey or any other means, in about 500 words)	<i>Attach separate sheet as Annex 1</i>
10.	Research Methodology (Any or combination of Desktop, Field, Laboratory work etc., with Sampling Plan for Data Collection/Generation, Places to be visited with Purpose etc.)	<i>Attach separate sheet as Annex 2</i>
11.	Key Deliverables with Timelines	
12.	Support required from BIS (such as Funds for purchase of books & Technical journals, Cost of materials & consumables, etc.)	<i>Attach separate sheet as Annex 3, if required</i>
13.	Any other information relevant to the Project	

Sign. of Officer with Date

Head of Deptt./BO

Activity Head (DDG)

DDG(PRT)



Doc. No. : PRTD/AR/PF:02	Issue No. : 2	Issue Date 28 Apr 2020	EVALUATION OF PROJECT FOR ACTION RESEARCH
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1.	Project ProposalNo. <i>(To be assigned byPRTD)</i>	AR/2020-21/xxx
2.	Name & Designation of the Proposer	
3.	Deptt./BO/RO & Place of Posting	
4.	Title of Action Research Project	
5.	Comments on relevance of the Project to BIS	
6.	Whether proposed methodology is appropriate to meet theObjective	
7.	Comments on Key Deliverables and Timelines	
8.	Approval of support sought for the project, with comments, if any	
9.	Decision of Committee on the Project <i>(Approved/Approved with Modifications/Wait- listed/Not Approved)</i>	

(Signatures of Chairperson, Members & Member Secretary of Action Research Committee)



भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDARDS

Doc. No. : PRTD/AR/PF:05	Issue No. : 1	Issue Date 30 Sept. 2020	TEST REQUEST FOR SAMPLE UNDER ACTION RESEARCH
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1.	Name & Designation of Officer and Deptt./RO/BO	
2.	Sample Code <i>(As dddd/nnn/ddmmyyy/ARP-xxxx/cc)</i> <i>where dddd is Deptt/BO code, nnn is Initials of officer, ddmmyyy is date of sampling, xxxx is number allotted to ARP and cc is sample number)</i>	
3.	IS No.	
4.	Nature of Test(s) involved <i>(Chemical, Mechanical, Electrical, Microbiological)</i>	
5.	Grade/Type/ Variety/Class/Size/ Rating	
6.	Priority of Testing	Priority
7.	Declared Value(s), if any	
8.	Sample Quantity	
9.	Date of Manufacturing/Packing etc.	
10.	Shelf life if applicable	
11.	Nature of packing	
12.	Manner of Sealing, if sealed	
13.	Specific Test(s) to be carried out, as applicable	
14.	Mode of Disposal of remnants of sample	
15.	Additional Information, if any	

Sign. of Officer with Date

Head of Deptt./BO
Concerned Lab



Doc. No. : PRTD/AR/PF:03	Issue No. : 2	Issue Date 30 Sept. 2020	Report of Action Research
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1.	Action Research Project No. (as assigned by PRTD)	AR-xxxx
2.	Title of the Action Research Project	
3.	Name & Designation of Officer	
4.	Employee No.	
5.	Deptt./BO/RO & Place of Posting	
6.	Date of Approval of the Project	
7.	Objective of the Project	
8.	Report of Action Research Activities	Attach as per Annexure , as appropriate
9.	Conclusion & Recommendations	
10.	Any other relevant information	

**Sign. of Officer
with Date**

Head of Deptt./BO

Activity Head

DDG(PRT)

Annexure

- Table of Contents with List of Figures and Tables, as applicable
- Introduction (Action Research Project Proposal to be clearly mentioned)
- Review of Literature (Background research/Literature Survey/any other means etc)
- Methods & Materials, Data, Details of Field Visits for studies & research etc.
- Results & Analysis
- Summary and Conclusions
- Recommendations
- Details of the BIS support availed with justification, bills/vouchers, etc., as relevant
- List of References, Bibliography (wherever applicable)
- Appendices (where included)
- Index (where included)

Style of Presentation (for guidance)

- Report to be submitted in A4 size paper.
- If tables and figures are large, they may be reduced to the standard size (provided the reduced area is not less than 50% of the original) and /or folded just once to flush with the margin (if the page size does not exceed 250x360mm).
- Beginning with 1st page as above (PF:03), all pages should be numbered consecutively as Page x of n (n being the total pages).



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Doc. No. : PRTD/AR/PF:04	Issue No. : 1	Issue Date 28 Apr 2020	DECLARATION OF ORIGINAL WORK
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DECLARATION OF ORIGINAL WORK

I, ----- (indicate official's Name & Designation),
EmployeeNo ----- hereby declare that the Action Research Project titled
“-----
-----” is the original research work done by me. I have not copied from any other Action
Research Project or any other work of similar nature and topic done by any person/institution/body
either published or yet to be published. Data and information from other sources, used if any, have
been with prior permission, wherever required and is duly acknowledged appropriately in the project
report submitted by me.

This declaration is made on the day of.....20.....

**Sign. of Officer
with Date**

Note: Joint Declaration should be submitted for Projects undertaken jointly