

The Atlas of Islamic World Science and Innovation

Terms of Reference for Peer Review Process

1. Objectives of Peer Review Process

The Atlas of Islamic World Innovation is an initiative to map key trends and trajectories in science and technology-based innovation in the OIC Member States. It will look in detail at geographically and economically diverse OIC countries, and offer an objective and independent assessment of how their innovation capabilities are changing, and the opportunities and barriers to further progress. The report of the project of the Atlas of Innovation of the OIC will include recommendations in respect of measures needed to transition to strong knowledge economies for governments, industry and higher education.

The main objectives of the Peer Review Group (PRG) are as following:

- 1.1 To ensure quality and accuracy of the contents of the country reports in accordance with the aims and methodologies of the project as stipulated in the Terms of Reference of the Project and Guide to Research Methodology.
- 1.2 To examine whether an objective assessment and thorough analysis of the current state of science, technology and innovation, and the prevailing strengths and weaknesses free from any personal bias or preference have been undertaken; and specific sectors have been critically analysed on the basis of credible data and information;
- 1.3 To ensure that the country reports include coherent and constructive recommendations that could be adopted by the country to promote science, technology and innovation, and overcome any bottlenecks and challenges for the future.

2. Peer Review Process

- 2.1 All country reports are required to be independently and objectively peer reviewed by the respective Peer Review Committee and coordinated by Prof Atta-ur-Rahman, the Coordinator General of COMSTECH and Fellow of the Royal Society. The PRG will comprise the collective country Peer Review Committees (PRC). Each country report will be peer reviewed by five (5) members of Peer Review Committee (PRC). Out of the five (5) peer reviewers at least three (3) shall be country experts (not necessarily from that country), and up to two (2) will be

Royal Society Fellows, who have the knowledge and understanding of national innovation systems. Each committee will consist of leading independent experts from the research community, industry and civil society (universities and think-tanks etc.) from OIC Member Countries, Europe and beyond. Members will be drawn from the natural, physical and social sciences. Each committee will be chaired by a chairman appointed by the Joint Management Team (JMT), following consultation with the Coordinator of PRG.

- 2.2 The members of the PRC, in case of each country report; the chairperson will be appointed by the JMT in consultation with (but not necessarily endorsement by) the two Project Managers, the concerned National Focal Point and the Coordinator of Peer Review Group;
- 2.3 PRC of each country report shall be given three weeks to provide their comments on the concerned country report in accordance with the standard proforma (attached as Annexure 1);
- 2.4 The suggestions and comments made by the PRC will be channelled through the Chairman of the PRC to the Project Managers and Lead Researchers for incorporating the amendments in the country report. The Project Managers, will make all the necessary changes working with the Lead Researcher ;
- 2.5 Any conflicts of reviewers' comments will be resolved by the Project Managers in consultation with the PRC Chair, and ultimately with the JMT if an agreement cannot be reached;
- 2.6 The Coordinator of PRG will determine, in consultation with the Chairman of the concerned PRC, that observations/amendments have been adequately incorporated in the report.

3. Coordination and Chairperson

- 3.1 The PRG will be coordinated by Prof Atta-ur-Rahman, the Coordinator General of COMSTECH and Fellow of the Royal Society.
- 3.2 The Coordinator of the PRG will not be personally involved in the peer review of any country report as a country expert.
- 3.3 The Chairperson of the PRC will take responsibility for liaising with each of the reviewers, explaining the task at hand, and being able to respond to any questions or queries as may arise, in consultation with the Project Managers.
- 3.4 The Coordinator of the PRG will oversee the peer review process and ensure that country reports are consistent with the desired standards according to the research methodology.

- 3.5 Editorial control will rest with the Project Managers, in consultation with the PRC Chair; conflicts being resolved by the JMT. However, in cases where the Project Managers are also authors or co-authors of the country report, editorial control will rest with the PRC Chair; as before, conflicts will be resolved by the JMT.

Annex 1

Pro forma for report reviewers

Reviewers name:
Document being reviewed: The Atlas of Islamic-World Science and Innovation X Country Report

- The purpose of the review is
 - To ensure quality and accuracy of the contents of the country reports in accordance with the aims and methodologies of the project as stipulated in the Terms of Reference of the project and Research Methodology Guide.
 - To examine whether a critical assessment and thorough analysis of the current state of science, technology and innovation, and the prevailing strengths and weaknesses, have been undertaken;
 - To ensure that the country reports set out a vision that promotes science, technology and innovation, and overcome challenges for the future.
- Reviewers are asked to consider whether, in their judgment, the evidence and arguments presented in the report are sound and support the conclusions.
- The names of the reviewers will normally be published in the final version of the report along with a disclaimer that the reviewers were not asked to endorse the country report or its findings.
- The suggestions made by the individual reviewers will be channelled through the Chairman of the PRC, the lead researcher and Project Managers for incorporating the amendments in the document.
- Reviewers are asked to put their name on the top of the first sheet of the pro forma in the spaces provided.
- Specifically reviewers are asked to address the following questions:

<p>1. <i>Does the STI country study adequately meet the project goals (purpose for which the study was undertaken and the goals of this project are attached, Annexure 1)?</i></p>
<p>2. <i>Does the report meet the standards you would expect of a document published by the Royal Society, the OIC, SESRIC (The Statistical, Economic & Social Research & Training Centre for Islamic Countries), Nature, the IDRC, British Council and other project partners?</i></p> <p><i>If not, how best could this be achieved?</i></p>
<p>3. <i>Does the report bring out new knowledge about the science, technology and innovation systems of X (country), and set out a vision for STI moving forward?</i></p>
<p>4. <i>Does the report properly identify deficiencies in current policies and provide new or additional policy measures that could be undertaken by the government, business community and other stakeholders of the innovation systems?</i></p>
<p>5. <i>How useful in your opinion is the report for country's policy makers, organizers and managers of research and business community?</i></p>
<p>6. <i>Does the report adequately provide an analysis of the prevailing innovation systems, i.e. product, process and organizational innovation including legal infrastructure?</i></p>

7.	<i>Does the report include the private sector? Has the country report take adequate measures to promote private sector investment R&D?</i>
8.	<i>What kinds of benefits are expected to accrue from the report for the country in question?</i>
9.	<i>Are the conclusions adequately supported by data and logical arguments and are they intelligible and possible to implement? Are any conclusions which are based on judgement rather than on evidence clearly recognisable as such?</i>
10.	<i>Is the report clear and concise? Are analytical methods, technical terms, acronyms and abbreviations properly applied and adequately explained?</i>
11.	<i>Are figures and tables adequate? Do they avoid being actually or potentially misleading? Do they support the inferences drawn and are they essential to the arguments?</i>
12.	<i>Is the report balanced in its presentation of different aspects? Is there any criticism in the report which is not evidence-based and/or inadequately documented?</i>
13.	<i>Are any recommendations relating to Government policy or the actions of other bodies sufficiently based on the evidence?</i>
14.	<i>Is the report complete and is all relevant subject matter or evidence covered or represented? Does the report consider the previous work on the topic?</i>
15.	<i>Does the report show any signs of vested interests, prejudice, special pleading or advocacy?</i>

16. *Do you have any additional comments?*

The following is a suggested step-by-step guide to the peer review process.

STEP 1: The project managers identify appropriate peer reviewers for each country study, in consultation with the JMT, NRP and NFP and other related individuals and/or institutions who might provide suggestions. At least three in-country experts are identified, along with up to two Fellows of the Royal Society who have appropriate expertise. These will form the Peer Review Committee (PRC) for each country study; each with a designated Chair.

STEP 2: The JMT endorses the recommended peer reviewers.

STEP 3: The project managers (RS / SESRIC) approach the reviewers on behalf of JMT, with an accompanying timeline for review. In the event that a peer reviewer is unavailable, the project managers will have identified a reserve candidate, again in consultation with the JMT.

STEP 4: Draft report is sent to the reviewers with the reviewer's proforma to guide them in this task. This template was developed in consultation with Professor Atta ur-Rahman during the Malaysia study. Ideally three weeks is provided for reviewers, subject to external factors.

STEP 5: At the same time as being sent to the peer reviewers, the report is sent to the JMT for their information. Comments are welcome, but not compulsory. Partners such as the British Council or IDRC may wish to share with their in-country offices as appropriate. Again, ideally three weeks is provided.

STEP 6: At the same time that the report is sent to the JMT and the peer reviewers, it is also sent to the NFP for their comments. Again, comments are to be encouraged.

STEP 7: Comments received from peer reviewers within allocated period of time. Lead researcher / NRP incorporate / tailor report, with oversight from project managers. Where issues arise over conflicting review comments or editorial concerns from the authors, the project managers (RS / SESRIC) will adjudicate on such matters in consultation with the Chair of the PRC.

STEP 8: Revised report, with reference to appropriate amendments is sent back to peer reviewers for noting / any further comments. Given that our reviewers are such eminent, busy people, peer reviewers are not obliged to respond to this second round of correspondence. Peer reviewers are importantly not required to endorse the report as per the standard principles of peer review.

STEP 9: Revised study, with a full report of the peer review comments and changes is provided to the JMT for any final comments / suggestions. Where appropriate, the report can be sent back to a partner if requested to see how changes have been incorporated but ideally partners will endorse the report at this stage of the process.

STEP 10: At the same time that the report is sent to the JMT, the report is also sent to the NFP. This is the final opportunity for the NFP to provide any comments on the report, and an appropriate timeline will need to be respected. Note – the NFP is not requested to endorse the report prior to publication.

STEP 11: The NFP comments are incorporated, where appropriate, by the Lead Researcher / NRP, with oversight from the project managers. Editorial judgement of the authors is reserved.

STEP 12: Once all JMT comments are incorporated, the project managers (the RS and SESRIC) send the report to the JMT for sign off, before it goes to publication.

STEP 13: Within the Royal Society, the study goes to the next Council for noting (earlier approval will rest with the President and the Executive Director).

