

---

---

सुरक्षा और प्रतिरोध क्षमता — सामुदायिक  
प्रतिरोध क्षमता — समकक्ष समीक्षाएँ  
आयोजित करने के लिए दिशानिर्देश

**Security and Resilience —  
Community Resilience — Guidelines  
for Conducting Peer Reviews**

ICS 03.100.01

© BIS 2023  
© ISO 2020



भारतीय मानक ब्यूरो  
BUREAU OF INDIAN STANDARDS  
मानक भवन, 9 बहादुर शाह ज़फर मार्ग, नई दिल्ली - 110002  
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG  
NEW DELHI - 110002  
[www.bis.gov.in](http://www.bis.gov.in) [www.standardsbis.in](http://www.standardsbis.in)

## NATIONAL FOREWORD

This Indian Standard which is identical to 'ISO 22392 : 2020 Security and resilience — Community resilience — Guidelines for conducting peer reviews' issued by the International Organization for Standardization (ISO) was adopted by the Bureau of Indian Standards on the recommendation of the Risk Management, Security and Resilience and approval of the Management and Systems Division Council.

The text of the ISO standard has been approved as suitable for publication as Indian Standard without deviations. Certain conventions are, however, not identical to those used in Indian Standards. Attention is particularly drawn to the following:

- a) Wherever the words 'International Standard' appear referring to this standard, they should be read as 'Indian Standard'; and
- b) Comma (,) has been used as a decimal marker while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

In the adopted standard, normative reference appears to an International Standard for which Indian Standard also exists. The corresponding Indian Standard, which is to be substituted in its place, is listed below along with its degree of equivalence for the edition indicated:

<i>International Standard</i>	<i>Corresponding Indian Standard</i>	<i>Degree of Equivalence</i>
ISO 22300 Security and resilience — Vocabulary	ISO 22300 : 2021 Security and resilience — Vocabulary	Identical

Annexes A, B, C, D, E and F of this adopted standard are for information only.

# Contents

Page

<b>Introduction</b> .....	<b>v</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Terms and definitions</b> .....	<b>1</b>
<b>4 Plan the peer review</b> .....	<b>2</b>
4.1 General.....	2
4.2 Decide the level of administration to be peer reviewed.....	3
4.3 Agree the expected benefits of the peer review.....	3
4.4 Agree the objectives of the peer review.....	3
4.5 Agree the high-level timeline for the peer review.....	4
4.6 Decide whether a self-assessment will be completed before the peer review.....	4
4.7 Consider the cost/benefit of hosting the peer review.....	4
4.8 Identify parties who are interested in the peer review.....	5
4.9 Select the analysis areas to be peer reviewed.....	5
4.10 Appoint an organization to coordinate the peer review.....	5
4.11 Agree the terms of the peer review.....	5
4.12 Select personnel from the host to provide information to the reviewers.....	6
4.13 Appoint reviewers.....	6
<b>5 Conduct the peer review</b> .....	<b>7</b>
5.1 General.....	7
5.2 Identify the attributes of conducting the peer review.....	7
5.3 Plan the peer review process.....	8
5.4 Prepare personnel to provide information to reviewers.....	9
5.5 Provide information to reviewers about each analysis area.....	9
5.5.1 General.....	9
5.5.2 Information on the strategy, vision and leadership for each analysis area.....	10
5.5.3 Information on the collection and use of intelligence for each analysis area.....	10
5.5.4 Information on the management of processes, systems, planning and audits for each analysis area.....	10
5.5.5 Information on the coordination and communication of operations for each analysis area.....	11
5.5.6 Information on the delivery of operations for each analysis area.....	11
5.6 Prepare and ask questions about each analysis area.....	11
5.7 Record observations and views about each analysis area.....	11
5.8 Analyse the information and form an opinion about each analysis area.....	12
5.9 Deliver consolidated feedback on each analysis area.....	12
<b>6 Assess the impact of the peer review</b> .....	<b>12</b>
6.1 General.....	12
6.2 Assess impact during the peer review.....	13
6.3 Assess impact after the peer review.....	13
6.3.1 General.....	13
6.3.2 Assess impact on practice using a quantitative approach.....	13
6.3.3 Assess impact on practice using a qualitative approach.....	14
<b>7 Improve the process of the peer review</b> .....	<b>14</b>
7.1 General.....	14
7.2 Identify improvements to the peer review process.....	14
7.3 Identify improvements to how the impact of the peer review process is assessed.....	15
<b>Annex A (informative) Example tasks to be conducted before, during and after the peer review visit</b> .....	<b>16</b>
<b>Annex B (informative) Descriptions of analysis areas to be peer reviewed</b> .....	<b>17</b>

<b>Annex C (informative) Example of an evidence-recording template .....</b>	<b>25</b>
<b>Annex D (informative) Example peer review visit timetable.....</b>	<b>31</b>
<b>Annex E (informative) Generic discussion points and questions to ask about each analysis area ..</b>	<b>33</b>
<b>Annex F (informative) Example form for reviewer to record information.....</b>	<b>34</b>
<b>Bibliography .....</b>	<b>35</b>

## Introduction

A peer review to enhance community resilience is a unique and privileged opportunity for a host country, region, city or community to engage in a constructive process to reflect on its activities with a team of independent professionals, e.g. on disaster risk reduction (DRR). It encourages conversations, promotes the exchange of good practice, and examines the performance of the entity being reviewed to enhance mutual learning and so can be of value to those who seek to further develop their practices. It can enhance preparedness for an incident and support learning from incidents and exercises. It is different to an audit in that a peer review may be optional, and an organization can design it according to its needs.

A peer review can be a catalyst for change and can enrich learning through bringing together a multi-disciplinary panel of trusted and competent experts from a range of technical, political and cultural backgrounds to concentrate on the host's situation. In the most beneficial peer reviews, both the host and the reviewers benefit by collecting and analysing the latest intelligence (understanding and information about the context), discussing the current situation, generating ideas, and exploring new opportunities to further strengthen activities in their own context. Mutual learning is facilitated by sharing good practice, identifying alternative approaches to policy and operations, and exploring critical questioning to consider how similar challenges are confronted elsewhere. Trusted relationships can form that can facilitate the development of innovative solutions to challenges.

These benefits are one reason why conducting peer reviews is consistent with the Sendai Framework for Disaster Risk Reduction 2015–2030<sup>[2]</sup> and its global target to have more countries with national and local strategies for DRR by 2020. Conducting peer reviews to enhance DRR also complements the United Nations' Sustainable Development Goal 11 to make cities and human settlements inclusive, safe, resilient and sustainable<sup>[4]</sup>, as it seeks to align entities through an integrated approach and sharing learning and benchmark information between hosts and reviewers. The guidelines in this document can also contribute to enhancing resilience and risk reduction.

The entities that can benefit from peer reviews include national, regional, local and organizational levels of governance, which may voluntarily engage with a peer review, or do so as part of a wider initiative of improvement. The peer review process for enhancing community resilience described in this document is not intended to be used as means for comparing one entity with another. Instead, it encourages cross-border cooperation to understand and improve performance. Since every host and team of reviewers are different, the outcome of each review will be too. The key to success is having one question at the forefront of the peer review: What will most help us all to enhance our performance?

[Figure 1](#) provides an overview of how to conduct a peer review.

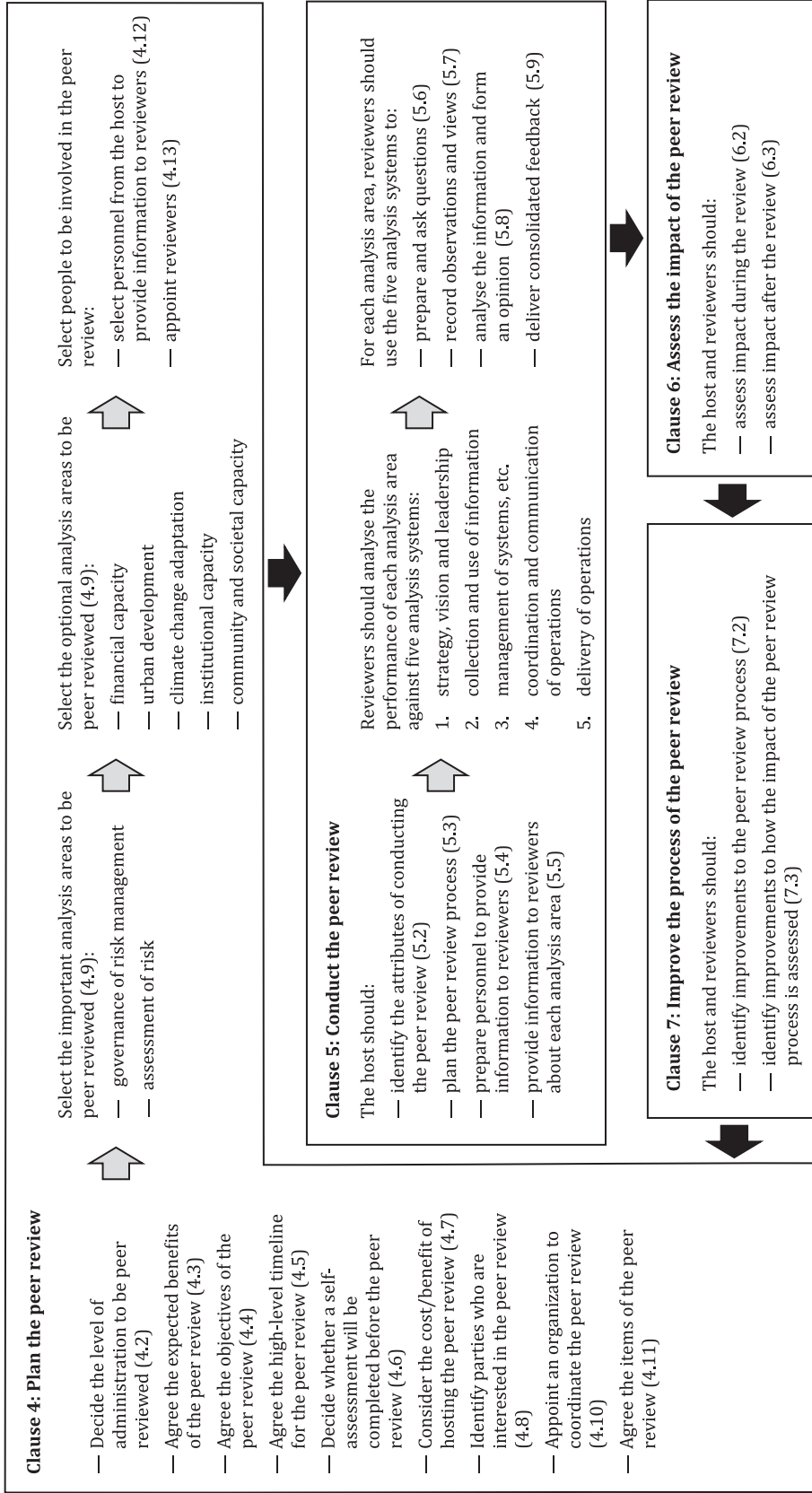


Figure 1 — Overview of the process to conduct a peer review

*Indian Standard***SECURITY AND RESILIENCE — COMMUNITY RESILIENCE —  
GUIDELINES FOR CONDUCTING PEER REVIEWS****1 Scope**

This document gives guidelines for organizations to design, organize, conduct, receive feedback from and learn from a peer review of their disaster risk reduction (DRR) policies and practices. It is also applicable to other community resilience activities. It is intended for use by organizations with the responsibility for, or involvement in, managing such activities including policy and preparedness, response and recovery operations, and designing preventative measures (e.g. for the effects of environmental changes such as those from climate change).

It is applicable to all types, structures and sizes of organizations, such as local, regional and national governments, statutory bodies, non-governmental organizations, businesses, and public and community groups. It is applicable before or after an incident or exercise.

**2 Normative references**

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 22300, *Security and resilience — Vocabulary*

**3 Terms and definitions**

For the purposes of this document, the terms and definitions given in ISO 22300 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

**3.1****peer review**

process used by a *reviewer* (3.3) to examine the performance of a *host* (3.2), provide feedback on an *analysis area* (3.4) and learn lessons that are transferable to its own context

Note 1 to entry: A peer review may cover multiple analysis areas.

Note 2 to entry: The host may replace “review” with a synonym such as “assessment”, “appraisal” or “analysis” to better describe the activity.

**3.2****host**

entity that receives feedback from a *reviewer* (3.3) as part of a *peer review* (3.1)

Note 1 to entry: The entity may be an organization, partnership, community, city, region, country or other body.

**3.3  
reviewer**

entity that provides feedback as part of a *peer review* (3.1) with expert knowledge and experience in the *analysis area* (3.4)

Note 1 to entry: The entity may be an organization, partnership, community, city, region, country or other body.

**3.4  
analysis area**

subject matter that has been selected to be *peer reviewed* (3.1)

EXAMPLE Governance of risk management, assessment of risk, financial capacity, urban development, climate change adaptation and ecosystem protection, institutional capacity, community and societal capacity, economic and business continuity, infrastructure, public health, recovering and rebuilding.

**3.5  
analysis system**

set of interconnecting parts that work together to form and deliver an *analysis area* (3.4)

**3.6  
review visit**

participation by *reviewers* (3.3) in *peer review* (3.1) activities at the *host* (3.2) location(s)

Note 1 to entry: Review visit activities include presentations, individual interviews, focus groups, site visits, and the observation of live and table-top exercises.

**3.7  
benefit**

measurable improvement resulting from the changes introduced as a result of a *peer review* (3.1)

Note 1 to entry: Benefits can be tangible or intangible, quantifiable or non-quantifiable, and financial or non-financial.

## 4 Plan the peer review

### 4.1 General

It is important that the host plans effectively for the peer review so that its delivery (see [Clause 5](#)) is successful. Planning the peer review will put in place the arrangements so that the reviewers have a maximum clarity of purpose from the host, and vice versa.

This clause describes planning for the peer review, including to:

- decide the level of administration to be peer reviewed (see [4.2](#));
- agree the expected benefits of the peer review (see [4.3](#));
- agree the objectives of the peer review (see [4.4](#));
- agree the high-level timeline for the peer review (see [4.5](#));
- decide whether a self-assessment will be completed before the peer review (see [4.6](#));
- consider the cost/benefit of hosting the peer review (see [4.7](#));
- identify parties who are interested in the peer review (see [4.8](#));
- select the analysis areas to be peer reviewed (see [4.9](#));
- appoint an organization to coordinate the peer review (see [4.10](#));
- agree the terms of the peer review (see [4.11](#));



- select personnel from the host to provide information to the reviewers (see [4.12](#));
- appoint reviewers ([4.13](#)).

#### **4.2 Decide the level of administration to be peer reviewed**

Peer reviews can be an effective approach to reflect on the activities being conducted at any level of administration. The host should decide whether the peer review should focus on the national, regional, local or organizational levels.

More than one level of administration may be the focus of the peer review, in which case, the amount of time available for the peer review should be increased to reflect the added complexity.

#### **4.3 Agree the expected benefits of the peer review**

The peer review should have expected benefits for the host and for reviewers and these should be agreed before organizing the peer review to provide clear expected impacts from the outcomes of the review.

There should be expected benefits for each selected analysis area (see [4.9](#)) to ensure clarity of the measurable improvement being sought.

The host and reviewers should define each of their expected benefits. This should:

- agree with their interested parties the benefits they expect from participating in the review (e.g. benefits to their performance, analysis areas, or other benefits such as learning or networking);
- describe each benefit and identify the benefit owner who is responsible for it (i.e. who will: plan the timing of changes to deliver the benefit; prepare the context for the changes; implement the changes; manage the changes to avoid negative side-effects);
- define the objectives (see [4.4](#)) that support each benefit;
- identify a measure of each benefit, including a current value for the measure and a target change in the value as a result of the peer review; if a benefit is not measurable directly, then a proxy measure should be identified;
- communicate information on benefits to each other (i.e. the reviewers should communicate their expectations to the host, and vice versa);
- consider these expectations when planning the peer review process (see [5.3](#)) to ensure all expectations are addressed.

#### **4.4 Agree the objectives of the peer review**

The host should agree clear objectives for the peer review in terms of how it will deliver the benefits (see [4.3](#)) and strengthen its performance in selected analysis areas (see [4.9](#)). Objectives should include how the peer review should enhance analysis areas in terms of:

- strategy, vision and leadership; this should include developing the culture and strategies;
- collection and use of information; this should include developing the analyses of external and internal data and information, building strategic collaborations, exploring the wider environment, and foreseeing future risks;
- management of systems, processes, planning and audits; this should include developing the management structure, planning processes, sustainable resource management, analysing corporate risks, functions that support operational delivery, business continuity, performance measurement, external audits, and learning from itself and others;

- coordination of, and communication with, operations; this should include developing the coordination of resources and partners, sharing information effectively internally and externally, and notifying senior leaders when situations change with significant implications;
- delivery of operations; this should include developing the structure of delivering operations, managing effective and efficient on-site delivery, autonomy of delivery units, and adapting to feedback from beneficiaries and other interested parties during operational delivery.

These elements are the five analysis systems, which are used in [5.5.1](#) to review the performance of each analysis area.

#### 4.5 Agree the high-level timeline for the peer review

To enable initial planning, the host should agree an anticipated timeline for the delivery of the peer review, including:

- the official start date of the peer review period;
- when the review visit should take place;
- the delivery date of the consolidated report from the reviewers (see [5.9](#)).

A detailed timeline should be developed in the delivery phase of the peer review, see [Annex A](#).

#### 4.6 Decide whether a self-assessment will be completed before the peer review

The host should consider whether they will complete a self-assessment as a preparation for the peer review. Options for a self-assessment include a document review (e.g. of risk register, strategy, plans), internal dialogues (e.g. discussions between staff and interested parties), and self-evaluation of current performance and costs.

A self-assessment takes time and effort, but its potential benefits include:

- enabling the host to gather evidence of activities in a structured way;
- enabling the host to establish its own view of its activities;
- providing benchmarks for the peer review;
- informing the selection of benefits and measures of the peer review (see [4.3](#));
- assisting in selecting analysis areas that would be most beneficial to be peer reviewed;
- providing additional information to reviewers as part of background information.

An option for self-assessment is the UNISDR *Preliminary Disaster Resilience Scorecard for Cities*<sup>[6]</sup>.

#### 4.7 Consider the cost/benefit of hosting the peer review

The host should consider the cost of conducting the peer review (e.g. travel costs, meeting costs, administration costs, opportunity costs). As the initiator of the review and the major beneficiary, the host should expect to pay all costs associated with the review unless another source of funding is available.

Using information on the costs and the benefits (see [4.3](#)) of the review, the host should assess if there is a sufficient return on investment from conducting the peer review. The assessment should be used to:

- judge the case for conducting the peer review;
- judge the case for the scale of the peer review;
- calibrate the breadth and depth of the peer review to ensure a sufficient return on investment.

#### 4.8 Identify parties who are interested in the peer review

The host should identify organizations and individuals, groups and partners with an interest in the process or outcome of the peer review to consider if they should be involved in the design and delivery of the review. The host should:

- identify parties with an interest in enhancing performance (e.g. elected officials, those indirectly or directly affected by the review, those wishing to learn from the review, citizens and their representatives);
- consider the implications of involving or not involving interested parties in the peer review process;
- decide if and how interested parties should be involved in the peer review process;
- review who are the important interested parties once the analysis areas have been selected (see [4.9](#)).

Examples of interested party groups include government officials, responders, private sector staff, academics, citizens, citizen representatives and elected officials.

#### 4.9 Select the analysis areas to be peer reviewed

With the influential interested parties (see [4.8](#)) and, potentially, the reviewers (see [4.13](#)) and, if conducted, using the results of the self-assessment (see [4.6](#)), the host should select the analysis areas to be reviewed according to its preferences and the agreed objectives (see [4.4](#)). See [Annex B](#) for potential analysis areas. As each analysis area is estimated to take one day of a review visit (plus activities before the visit), the host should decide on the number, depth and specificity of the analysis areas to be reviewed.

Risk management and assessment of risk are two important analysis areas that should be included in every peer review to provide sufficient background information to reviewers. If these two analysis areas are not included, then information of sufficient detail on these topics should be provided to reviewers.

The host should select the analysis areas to be reviewed. Descriptions of the options are provided in [Annex B](#). The selection of analysis areas will depend on the duration of the review visit. Some analysis areas are of a strategic nature while others are operational.

Not every peer review should cover all the analysis areas in [Annex B](#). In addition to those in [Annex B](#), the host should consider if there are any other analysis areas that should be reviewed. The design of those should follow those outlined in [Annex B](#).

#### 4.10 Appoint an organization to coordinate the peer review

Once the interested parties (see [4.8](#)), benefits (see [4.3](#)) and objectives (see [4.4](#)) have been identified, the host should appoint an organization to coordinate the peer review, including to:

- project-manage the delivery of the peer review to achieve the objectives of the review and support the benefit owners;
- conduct the administrative arrangements of the peer review for the host and reviewers.

#### 4.11 Agree the terms of the peer review

Before appointing reviewers, the host and reviewers should clarify the expectations and process of the review including the details in [4.2](#) to [4.10](#).

It can be necessary to record the terms in a formal contract that has been developed with legal support. This can include:

- agreed terms of the peer review;

- expectations of the host and reviewers;
- confidentiality;
- intellectual property rights;
- who bears responsibility for information in publications produced as part of the peer review;
- dissemination limitations, including the inclusion of information that is deemed sensitive or confidential.

#### **4.12 Select personnel from the host to provide information to the reviewers**

The host should ensure that relevant personnel are available to answer questions that reviewers have and provide additional information to them during the review. The host should select a broad team (potentially 5 to 50 personnel) to represent all analysis areas, including:

- a range of personnel who have sufficient breadth and depth of knowledge (e.g. technical specialists, support functions, community representatives);
- interested parties who could be affected by the outcome of the review;
- personnel from outside of its geographical location if their expertise is required.

#### **4.13 Appoint reviewers**

It is important for the host to have confidence that the reviewers are trusted to conduct a peer review and will help to achieve its objectives. The following criteria can be used when selecting a reviewer:

- context in which the reviewer normally works and its relevance to the review (e.g. level of administration to be peer reviewed, risks and hazards, or the political, economic, social, technical, environmental or legal context);
- breadth and depth of technical knowledge and experience needed to conduct the peer review;
- capacity to be released from regular duties to participate in the peer review and review visit;
- characteristics of the reviewer, including:
  - being open to appreciating contexts that are different to their own;
  - management skills to conduct the peer review effectively;
  - analytical and verbal/written communication skills to report their findings;
  - ability to deliver the desired style of the review (e.g. developmental, supportive, direct, challenging, critical);
  - ability to cognitively process large volumes of information and reach conclusions from those;
- availability of administrative capacity to conduct the peer review processes effectively, including the preparation, analysis of information and production of findings;
- language(s) spoken by the reviewer and whether sharing the same language is important or whether a translation service (for documents and discussion) is sufficient;
- ability to deliver the benefits (see [4.3](#)) and objectives (see [4.4](#)) within the terms of the peer review (see [4.11](#));
- ability to satisfy relevant background checks (e.g. security clearance).

Interviewing potential reviewers could help to further understand their suitability.

Reviewers should be assembled into a small review team (potentially of 2 to 5 persons). The team may come from one entity or be assembled from different entities from different countries. The team should include:

- reviewers who have sufficient domain knowledge of the analysis areas that are to be peer reviewed;
- a suitable mix of reviewers to bring different perspectives (e.g. local and national government officials, private sector, civil society, academia);
- reviewers who can liaise with each other to adequately prepare for the peer review;
- a lead reviewer.

## 5 Conduct the peer review

### 5.1 General

The host will have selected the analysis areas to be peer reviewed (see 4.9) to accomplish the agreed objectives (see 4.4). A process to review these analysis areas should be adopted to ensure the peer review is conducted smoothly and to manage the expectations of the host and reviewers. This clause describes that, to conduct the peer review, the host should:

- identify the attributes of conducting the peer review (see 5.2);
- plan the peer review process (see 5.3);
- prepare personnel to provide information to the reviewers (see 5.4);
- provide information to reviewers about each analysis area (see 5.5);

and that the reviewer should:

- prepare and ask questions about each analysis area (see 5.6);
- record observations and views about each analysis area (see 5.7);
- analyse the information and form an opinion about each analysis area (see 5.8);
- deliver consolidated feedback on each analysis area (see 5.9).

### 5.2 Identify the attributes of conducting the peer review

The following attributes should underpin the design of the peer review process:

- a straightforward process:
  - to understand analysis areas that are important to the host;
  - that is efficient so that each analysis area can be reviewed via documentation and a one-day review visit;
  - that can combine several analysis areas during a review visit lasting several days;
  - that feeds conclusions from reviewers back to the host;
- an evidence-based approach so that understanding of analysis areas:
  - relies on respected sources of information and expertise;
  - acknowledges the context as an explanation behind policies and practices;
  - is recorded in a substantial audit trail of discussions;

- can identify actions in which the host and reviewers have confidence;
- based on appropriate benchmarks available to assess its performance against similar organizations;
- includes a triangulation of information to increase confidence in feedback, including:
  - each analysis area reviewed as a document review as well as a review visit at the host site;
  - a variety of types of information (e.g. qualitative and quantitative, visual and audio, written, spoken) presented in different ways (e.g. host documents and presentations, individual interviews, focus groups, site visits, observing live or table-top exercises);
  - opportunity for reviewers to check the on-the-ground reality against the documentation;
  - providing time to reflect on information at the end of each analysis area and the review as a whole;
- identifies clear recommendations to further enhance performance that:
  - are evidence-based;
  - are triangulated across different sources of information;
  - are feasible in the context;
- avoids the misapprehension that a review can lead to a league table on how a city compares to others undertaking a peer review.

These attributes should be used when designing an agenda for the review visit (see [5.3](#)).

### 5.3 Plan the peer review process

The host and the reviewers should use the attributes of the peer review process (see [5.2](#)) to design the peer review process. The process should include a review of documentation facilitated by the host sending appropriate documents about the analysis areas to reviewers (see [5.5](#)). The process should also include a review visit (typically after the document review) where reviewers meet personnel from the host to ask questions and receive more information.

The agenda for the review visit should enable the reviewers to fill the gaps in their knowledge of analysis areas and should advise them on the number, duration and content of activities to be organized by the host. This may involve the following activities:

- introductory presentations on governance structures, risks, capabilities, challenges, and key aspects of the host's territory that are relevant to the review (e.g. its geography, hydrology, hypsometry, meteorology, demography);
- individual interviews with personnel from the host to gather information on specialist topics;
- focus groups with personnel chosen by the host (see [4.12](#)) to gather information on generalist and specialist topics;
- site visits of relevance to the analysis areas;
- observing live or table-top exercises to witness a demonstration of the host's capabilities and visualize the application and coordination of resources;
- reflection sessions for the team of reviewers (alone and with the host) to provide opportunity to:
  - discuss observations and views;
  - develop consensus on initial findings to feedback to the host at the end of the review meeting;
  - initiate the writing of the feedback report.

The host should identify and plan the major tasks to be conducted before, during and after the review visit to deliver the peer review process smoothly. Some major tasks are presented in [Annex A](#).

[Annex C](#) offers a form for reviewers to record the important evidence that they are provided with during the review. [Annex D](#) offers a sample agenda for the review visit.

#### 5.4 Prepare personnel to provide information to reviewers

The host should prepare the personnel (see [4.12](#)) who will provide information to the reviewers. The personnel should be provided with information on:

- the objectives and expected benefits of the peer review;
- why they have been selected to provide information to the reviewers;
- the review process and the expectations of them during that process;
- what information they should prepare for the reviewers and how much time they have to share it with the reviewers;
- queries from the reviewers to which they could be asked to respond;
- the agenda and logistics for the review visit;
- brief biography of each reviewer.

#### 5.5 Provide information to reviewers about each analysis area

##### 5.5.1 General

The host should provide information to reviewers about each analysis area that has been selected for review. Some of this information will already exist and should be provided as part of the document review (see [5.3](#)), while other information will be more suitable to provide in person during the review visit. Irrespective of when the information is provided, reviewers should receive information for each analysis area pertaining to the following analysis systems:

- strategy, vision and leadership (see [5.5.2](#));
- collection and use of intelligence (see [5.5.3](#));
- management of processes, systems, planning and audits (see [5.5.4](#));
- coordination and communication of operations (see [5.5.5](#));
- delivery of operations (see [5.5.6](#)).

**NOTE** These five analysis systems are the highest level at which an analysis area can be detailed and they govern the structure of how: information is provided to reviewers (this subclause), questions are prepared by reviewers (see [Annex E](#)), observations and views are recorded by reviewers (see [Annex C](#)), reviewers analyse information and provide feedback to the host (see [5.8](#)), and the impact of the peer review (see [6.3.3](#)).

To contextualize this information, the host should provide an overview of its entity, territory (e.g. its geography, hydrology, hypsometry, meteorology, demography), and historic, cultural and political context.

The information should be provided in a language mutually agreed by the host and reviewers at least three months before the review visit.

The reviewers should use this information to analyse the host's policies and practices. Each analysis system contains elements on which reviewers need information to review the analysis area. The quality of the review will be improved by all available relevant information being included.

### **5.5.2 Information on the strategy, vision and leadership for each analysis area**

This analysis system focuses on the strategy of the analysis area and the strategic leadership that governs the host in the delivery of its vision. This includes activities around strategy development processes and establishing leadership focus.

For this analysis system, information that should be available to the reviewers about the analysis area includes:

- aims, objectives and strategies;
- governing documents and policies;
- long-term financial, environmental and political aspects;
- governance and decision-making structures.

### **5.5.3 Information on the collection and use of intelligence for each analysis area**

This analysis system focuses on how leaders and managers make informed decisions about the analysis area by interpreting the intelligence collected. This includes activities around exploring the social and physical environment, analysing external data and information, and engaging with strategic collaborations.

For this analysis system, information that should be available to the reviewers about the analysis area includes:

- important information that is collected and made available to the organization;
- how that information is used by the organization;
- information gaps and consequences of these gaps;
- external legislation, frameworks, reports and research that support performance;
- descriptions of relationships with external entities (e.g. partnerships, memoranda of understanding, challenging relationships).

### **5.5.4 Information on the management of processes, systems, planning and audits for each analysis area**

This analysis system focuses on how managers organize resources and follow effective processes to deliver operations for the analysis area. This includes activities around the management structure, planning operations, sustainable resource management, managing corporate risks, effective support functions, ensuring continuity of service and managing performance (e.g. regular performance monitoring, ad hoc audits, learning from itself and others).

For this analysis system, information that should be available to the reviewers about the analysis area include:

- people available to manage the system (e.g. management structure, number of staff, core roles and responsibilities);
- processes used to manage the system (e.g. for planning operations, corporate risk management, performance management, business continuity, exercising and training);
- resources available and the sustainability of those (e.g. budgets, partnership resources, mutual aid arrangements);
- affordability of response and recovery operations;
- gaps in people, processes, resources and affordability that would benefit from being addressed.



### 5.5.5 Information on the coordination and communication of operations for each analysis area

This analysis system focuses on ensuring that operations for the analysis area are coordinated to deliver what management requests. This includes activities around coordinating resources and partners' activities, communicating effectively internally (between operations units) and externally (between operations and management), and the ability to notify senior leaders quickly when the situation changes with significant implications.

For this analysis system, information that should be available to the reviewers about the analysis area includes:

- partnership working and coordination of resources and effort;
- processes for determining and prioritizing needs;
- processes for determining what proportionate resources are deployed to address those needs;
- communication procedures to ensure the coordination of resources at the scene;
- role (if any) of civil society in communication, coordination and collaboration.

### 5.5.6 Information on the delivery of operations for each analysis area

This analysis system focuses on delivering the necessary breadth of operations that have the desired effect for the analysis area. This includes activities around the structure of delivery, managing effective and efficient on-site delivery, providing operating units with autonomy, and interpreting (and responding to) feedback from beneficiaries and other interested parties about delivery.

For this analysis system, information that should be available to the reviewers about the analysis area include:

- how the approach to delivery is aligned to the strategy;
- capabilities available to deliver operations, including those for mitigation, preparedness, response and recovery;
- processes to manage effective and efficient on-site delivery;
- targets for service delivery, including special arrangements for critical infrastructure and other facilities;
- processes for understanding the effectiveness of delivery and adapting delivery.

## 5.6 Prepare and ask questions about each analysis area

After analysing the information provided as part of the document review (see [5.3](#)), reviewers should prepare questions to address gaps in their knowledge of how the host delivers each analysis area. These questions should be asked to the host before, during or after the review visit.

To identify suitable questions, reviewers should identify gaps in the information provided (see [5.5](#)) and use their experience and knowledge of the analysis area to identify aspects that have not been suitably addressed. In addition, [Annex E](#) identifies some generic discussion points and questions that can be asked of an individual or group during a review visit.

## 5.7 Record observations and views about each analysis area

Reviewers should aim to accurately record observations and views of the information provided to them during the review. [Annex F](#) offers a form to help reviewers to record key observations and views. Recording in this way, and reviewing these as part of the analysis (see [5.8](#)), should assist with identifying important details to include in the reviewers' consolidated feedback report (see [5.9](#)).

## 5.8 Analyse the information and form an opinion about each analysis area

Each reviewer should analyse all the information that they have received and the observations and views they have recorded to form an individual opinion on each analysis area, including:

- areas of strong performance;
- areas where performance could be strengthened;
- whether the expected benefits (see [4.3](#)) can be realized;
- changes required to realize each expected benefit.

To enable this in a systematic manner, the reviewer should consider the host's performance according to each analysis system. The reviewer should complete the evidence recording template in [Annex C](#) for each analysis area to:

- form an opinion on the strategy, vision and leadership for each analysis area;
- form an opinion on the collection and use of intelligence for each analysis area;
- form an opinion on the management of systems, processes, planning and audits for each analysis area;
- form an opinion on the coordination and communication of operations for each analysis area;
- form an opinion on the delivery of operations for each analysis area.

[Annex C](#) provides examples of aspects that a reviewer should consider when they use the analysis systems to form an opinion on each analysis area.

## 5.9 Deliver consolidated feedback on each analysis area

Each reviewer should share their analysis and opinions (see [5.8](#)) with the other reviewers to contribute to a single, agreed, appropriate and sufficient feedback report for the host. To achieve this, the reviewers should identify opinions that are consistent across all the reviewers and opinions that differ. The reviewers should agree which consolidated opinions should be fed back to the host, including:

- areas of strong performance;
- areas for further consideration to strengthen;
- areas where the reviewers were unable to reach a consistent opinion and the reason for this;
- whether the expected benefits (see [4.3](#)) for each analysis area can be achieved;
- changes required to achieve each expected benefit.

The feedback report should be a written document, verbal description, presentation or some other communication, or a combination of these.

## 6 Assess the impact of the peer review

### 6.1 General

It is important to understand what implications the peer review has had for those involved by gauging the actual impact of the review on enhancing performance. However, predicting impact should also be done during the peer review process so that adjustments can be made to the review if it is found that the objectives are in jeopardy of not being achieved.

This clause describes how the host and reviewers should:

- assess impact during the review (see [6.2](#));

- assess impact after the review (see [6.3](#)).

## 6.2 Assess impact during the peer review

During the review, the host and reviewers should assess the likely impact that their work will have on achieving the benefits (see [4.3](#)) and objectives (see [4.4](#)) of the review and take corrective actions, where necessary, so the objectives are fully met.

The host and reviewers should:

- identify aspects that could prevent the peer review from having its expected impact (e.g. insufficient information available about an analysis area);
- raise concerns with the host as soon as possible to discuss their implications;
- identify and implement corrective actions to minimize the negative implications.

## 6.3 Assess impact after the peer review

### 6.3.1 General

After the peer review, the host and reviewers should conduct two assessments of the impact of the review to understand the value gained from their involvement relative to the investment (see [4.7](#)). The first assessment should be conducted quickly after the peer review to collect initial feedback. The second assessment should be conducted after an agreed period of time has passed to collect more considered views.

These assessments should assess the impact of the peer review:

- using a quantitative approach (see [6.3.2](#));
- using a qualitative approach (see [6.3.3](#)).

### 6.3.2 Assess impact on practice using a quantitative approach

To assess the impact, the host should evaluate the expected benefits of the peer review using the agreed measures (see [4.3](#)) and should:

- assess each measure before the peer review to establish a current value;
- assess each measure after the implementation of changes (following the peer review) to establish a new value;
- compare the before and after values of each measure to build a comprehensive view of the impact of changes.

Measuring impact after the peer review should be done through monitoring changes in quantitative measures that are regularly assessed. Care should be given when interpreting quantitative measures of impact as:

- attributing changes in measures to the effect of the peer review can be unwarranted as other (unknown) factors could explain the changes;
- it can take time for the impact of an activity to have a change on the quantitative measures, a lag that could take a significant time before the change is evident;
- no change in a measure does not mean that the activity did not have a positive impact, e.g. the measure may not assess the aspects affected by the change, or other (unknown) factors could be lowering the measure (thus compensating for the improvement from the activity).

The aim of using measures that are regularly assessed is to gauge the effect of change based on historical performance in which interested parties have confidence. New measures can take time to build a reliable picture of performance, and take time to gain the confidence of users as reliable indicators, so should be used to complement established measures.

### 6.3.3 Assess impact on practice using a qualitative approach

Measuring impact after the peer review should also be done in a qualitative manner to explore what the host and reviewers perceive to be the consequences of the peer review.

Questions to gauge impact should initially explore:

- if the expected benefits (see [4.3](#)) of the peer review have been met;
- if the objectives (see [4.4](#)) of the peer review have been met;
- if there has been learning from participating in the peer review.

More detailed questions using the analysis systems should explore what changes and impacts have taken place for each analysis area as a result of the peer review, including:

- what changes have been made to strategy, vision and leadership for each analysis area, and what effects those changes have had;
- what changes have been made on the collection and use of intelligence for each analysis area, and what effects those changes have had;
- what changes have been made on the management of processes, systems, planning and audits for each analysis area, and what effects those changes have had;
- what changes have been made on the coordination and communication of operations for each analysis area, and what effects those changes have had;
- what changes have been made on the delivery of operations for each analysis area, and what effects those changes have had.

To explore such questions, the host and the reviewers should:

- consider how their thinking has changed and why;
- identify what practical changes have been made to their systems;
- discuss their answers to these questions after the host has considered the review report.

## 7 Improve the process of the peer review

### 7.1 General

In order for the peer review to have greater future impact and success, the host and reviewers should reflect on how to further improve the process of the peer review and should:

- identify improvements to the peer review process (see [7.2](#));
- identify improvements to how the impact of the peer review process is assessed (see [7.3](#)).

### 7.2 Identify improvements to the peer review process

The host and reviewers should identify how to improve the peer review process to make it more:

- usable;

- inclusive of relevant interested parties;
- able to access best practice;
- able to support knowledge exchange and learning;
- encouraging of generating change to enhance performance;
- complementary of existing approaches to enhance performance.

These improvements should be used in future peer reviews that involve the host, reviewers or other interested parties. Each part of [Clauses 4](#) to [6](#) should be considered to identify, for the next peer review:

- what should be done the same;
- what should be done differently;
- what is missing from [Clauses 4](#) to [6](#) that should be included;
- what is included in [Clauses 4](#) to [6](#) that should be removed.

### **7.3 Identify improvements to how the impact of the peer review process is assessed**

The host and reviewers should evaluate the methodology to assess the impact of the peer review (see [6.2](#)). This evaluation should consider whether the methodology delivers a consolidated view from the reviewers (see [5.9](#)) on changes to achieve the expected benefits (see [4.3](#)). The host and reviewer should reflect on how they:

- assessed the potential impact of the peer review during the peer review process;
- assessed the impact of the peer review after the peer review process, including how they:
  - assessed the impact of the peer review on their thinking;
  - used a quantitative approach to assess the impact of the peer review on their practice;
  - used a qualitative approach to assess the impact of the peer review on their practice;
  - identified improvements to the peer review process.

## Annex A (informative)

### Example tasks to be conducted before, during and after the peer review visit

This annex describes the major tasks to ensure the success of the peer review, see [Table A.1](#).

**Table A.1 — Tasks to be conducted before, during and after the peer review visit**

Performed by	Before peer review visit	During peer review visit	After peer review visit
Host	<ol style="list-style-type: none"> <li>1. Conduct a self-assessment</li> <li>2. Identify analysis areas to be reviewed</li> <li>3. Organize and provide background information to reviewers</li> <li>4. Plan the agenda, personnel and logistics</li> <li>5. Brief personnel who will provide information to the reviewers</li> </ol>	<ol style="list-style-type: none"> <li>6. Ensure logistics are coordinated for personnel and reviewers</li> <li>7. Allow discussions to take place for reviewers to get necessary information</li> <li>8. Note the recommendations from the discussions</li> <li>9. Take photographs for inclusion in the feedback report</li> </ol>	<ol style="list-style-type: none"> <li>10. Consider feedback from the reviewers' report</li> <li>11. Share the reviewers' report with interested parties and discuss learning points</li> <li>12. Prepare a brief response to the reviewers' report</li> <li>13. Draft an action plan for learning points</li> <li>14. Reflect on improvements to the peer review process</li> </ol>
Reviewers	<ol style="list-style-type: none"> <li>1. Receive and analyse background information</li> <li>2. Identify and request additional information</li> <li>3. Prepare a collective view of the review team of the information</li> <li>4. Prepare questions to ask of personnel from the host</li> <li>5. Identify additional interested parties to question</li> <li>6. Agree a template to record information during the review visit</li> </ol>	<ol style="list-style-type: none"> <li>7. Ask questions of personnel from the host and observe activities</li> <li>8. Analyse the information to find consistencies and remaining questions</li> <li>9. Record information and views using the template</li> <li>10. Prepare collective views from the review team</li> <li>11. Ask for feedback on initial views before the end of the review visit</li> </ol>	<ol style="list-style-type: none"> <li>12. Identify changes to realize expected benefits</li> <li>13. Prepare a consolidated feedback report of good practices and areas for improvement</li> <li>14. Reflect on improvements to the peer review process and share with the host</li> <li>15. Identify lessons for the reviewer to transfer into their work context</li> </ol>

## **Annex B**

### **(informative)**

### **Descriptions of analysis areas to be peer reviewed**

[Table B.1](#) describes examples of analysis areas that may be selected by the host. For each analysis area, there is a description of why the analysis area is important and what should be included in the scope of each analysis area.

**Table B.1 — Descriptions of analysis areas to be peer reviewed**

Analysis area	Why the analysis area is important to reviewers	What should be included in the scope of each analysis area
<p><b>Governance of risk management</b></p>	<p>This analysis area is important because, for a reviewer to contribute to the development of resilience by a level of administration, it is necessary to understand how risk is currently organized and managed.</p> <p>It will also help reviewers to understand whether there is an effective configuration of interested parties supporting the prevention, mitigation, preparedness, response, recovery and rehabilitation.</p>	<p>Possible inclusions are:</p> <ul style="list-style-type: none"> <li>— governing and decision-making structures;</li> <li>— roles of relevant departments;</li> <li>— legislative and legal frameworks;</li> <li>— measures used for governance;</li> <li>— coordination of interested parties;</li> <li>— delegated authority and financial approval;</li> <li>— external alliances, e.g. with other countries, groups, the private sector;</li> <li>— mechanisms for gathering, using and disseminating risk and hazard information;</li> <li>— how the importance of risk reduction features in actions, policies and standards;</li> <li>— other relevant aspects from ISO 31000.</li> </ul>



Table B.1 (continued)

Analysis area	Why the analysis area is important to reviewers	What should be included in the scope of each analysis area
<b>Assessment of risk</b>	<p>This analysis area is important because, for a reviewer to contribute to enhancing resilience, it is necessary to understand how risk is assessed, the role of interested parties in this assessment, and the level of confidence that can be placed in that assessment.</p> <p>It will also help reviewers to understand whether there is an effective process that exploits the latest information, including risk scenarios, hazard characteristics, local exposures, capacity and vulnerability.</p>	<p>Possible inclusions are:</p> <ul style="list-style-type: none"> <li>— existing risk assessments;</li> <li>— processes used for risk assessment including the risk management methodology;</li> <li>— risk appetite of the organization;</li> <li>— the most probable and severe risks, including risk maps and risk scenario assessments;</li> <li>— the exposure of geographic areas, critical infrastructure, population settlements and communities, economic assets, areas of social importance and cultural heritage;</li> <li>— interdependencies and cascading failures from one asset system to another;</li> <li>— estimate timescales over which risks, vulnerabilities and impacts occur;</li> <li>— mechanisms for the engagement of interested parties and risk communication.</li> </ul>
<b>Analysis areas that are more strategic</b>	<p><b>Financial capacity</b></p> <p>This analysis area is important because sustainable financial resources need to be effectively sourced and managed to enhance performance, including those from city revenues, national allocations to sectors, public-private partnerships, technical cooperation, civil society and external organizations.</p> <p>This analysis area will help reviewers to understand the financial mechanisms that secure funds, including those specific for DRR, resilience and the broader development spending that reduces risks.</p>	<p>Possible inclusions are:</p> <ul style="list-style-type: none"> <li>— direct and indirect costs of disruptive incidents (informed by past experience, taking into account future risk);</li> <li>— management of budgets to maintain current (and support new) activities;</li> <li>— sourcing new budgets for new activities;</li> <li>— financial mechanisms for the disbursement of funds during and after a disruptive incident.</li> </ul>

**Table B.1** (continued)

<b>Analysis area</b>	<b>Why the analysis area is important to reviewers</b>	<b>What should be included in the scope of each analysis area</b>
<b>Urban development</b>	<p>This analysis area is important because risk-informed urban development can help to avoid or minimize the disruption and destruction of urban areas.</p> <p>This analysis area will help reviewers to understand how resilience is integrated into urban development and how this safeguards social and economic investments by ensuring the availability of networks, grids and infrastructure and city services.</p>	<p>Possible inclusions are:</p> <ul style="list-style-type: none"> <li>— land zoning and urban growth management;</li> <li>— vulnerable communities and infrastructure deficits;</li> <li>— building regulations and standards;</li> <li>— interaction of the local (urban) environment with the (rural) neighbourhood.</li> </ul>
<b>Climate change adaptation and ecosystem protection</b>	<p>This analysis area is important because ecosystems offer both protective barriers against hazards (e.g. flood regulation, protecting against landslides) and livelihood benefits (e.g. food, clean water) that enhance resilience (when strong) and cause vulnerability (when compromised).</p> <p>This analysis area will help reviewers to understand how urban development has transformed ecosystems, generated new risks, provides additional natural buffers to enhance resilience and compromise it.</p>	<p>Possible inclusions are:</p> <ul style="list-style-type: none"> <li>— strategies for risk prevention, protection and enhancement of ecosystems;</li> <li>— risks posed by climate change trends;</li> <li>— alliances with environmental managers and the private sector;</li> <li>— legislation and frameworks to support climate change mitigation and ecosystem protection.</li> </ul>
<b>Institutional capacity</b>	<p>This analysis area is important to identify the organizations that offer institutional capacity for resilience (e.g. equipment, staff, volunteers) and could affect vulnerabilities (e.g. those providing public utilities, healthcare, transport, waste collection).</p> <p>This analysis area will help reviewers to identify gaps in the local capacity to coordinate prevention, mitigation, response and recovery activities as well as identify improvements to strengthen capacity.</p>	<p>Possible inclusions are:</p> <ul style="list-style-type: none"> <li>— institutional roles and responsibilities;</li> <li>— implementation of strategies to enhance capacity;</li> <li>— mechanisms for local capacity building;</li> <li>— risk-aware planning;</li> <li>— integration of risk in project design.</li> </ul>

Table B.1 (continued)

Analysis area	Why the analysis area is important to reviewers	What should be included in the scope of each analysis area
<b>Community and societal capacity</b>	<p>This analysis area is important because citizens are integral to the collective effort to enhance resilience so education, training and public awareness programmes help raise citizens' understanding of risks, preparations and effective responses.</p> <p>This analysis area will help reviewers to understand how capacity building programmes mobilize citizen participation in DRR, resilience, preparedness and response, and how this translates societal capacity.</p>	<p>Possible inclusions are:</p> <ul style="list-style-type: none"> <li>— community response units and resources;</li> <li>— services to vulnerable groups in high-risk areas;</li> <li>— strategies for public education, awareness and engagement;</li> <li>— strategies to protect sites of cultural, historical and religious interest;</li> <li>— community engagement, preparedness, and response activities and exercises;</li> <li>— preparedness for immediate action/support for people with disabilities in case of disruption.</li> </ul>
<b>Economic and business continuity</b>	<p>This analysis area is important because the business community must know about the hazards and risks to which their operations and workforce are exposed to enable them to prepare for potential disruptive incidents so they can return to operational efficiency quickly after a disruptive incident.</p> <p>This analysis area will help reviewers to understand what is done to support business continuity (e.g. covering operations, staff, supplier and customer bases) and how this is strategized to build economic and business continuity, taking an approach that considers all of society.</p>	<p>Possible inclusions are:</p> <ul style="list-style-type: none"> <li>— business involvement in planning;</li> <li>— training on business continuity;</li> <li>— incentives for economic and business continuity planning including at-risk business outputs and employment;</li> <li>— strategies for economic growth following a disruptive incident.</li> </ul>
<b>Infrastructure</b>	<p>This analysis area is important because it includes those provisions that need special attention as they deliver essential functions during and after a disruptive incident e.g. transport, fuel supplies (e.g. for vehicles and heating), water supplies (e.g. for drinking and firefighting), utilities and telecommunications, healthcare facilities.</p> <p>This analysis area will help reviewers to understand how critical infrastructure is addressed by resilience efforts and what plans and provisions are in place to ensure that infrastructure continue to operate after a disruptive incident.</p>	<p>Possible inclusions are:</p> <ul style="list-style-type: none"> <li>— adequacy of risk reduction planning for critical infrastructure (e.g. including risk and vulnerability assessments, and platforms for interested parties);</li> <li>— cascading effects of infrastructure damage (e.g. secondary effects within the infrastructure and to adjoining infrastructure);</li> <li>— vulnerable infrastructure and retro-fitting safeguards;</li> <li>— connections between infrastructure agencies.</li> </ul>

Table B.1 (continued)

Analysis area	Why the analysis area is important to reviewers	What should be included in the scope of each analysis area
<b>Public health</b>	<p>This analysis area is important because hospitals and health-care facilities provide essential functions for all disruptive incidents as well as perform a central function when this involves widespread public health alerts.</p> <p>This analysis area will help reviewers to understand the general and specialist medical capacity of existing systems, the fragilities of such systems, and how they aim to respond to an incident involving widespread casualties.</p>	<p>Possible inclusions are:</p> <ul style="list-style-type: none"> <li>— population exposure to public health risks;</li> <li>— service coverage and the health care provision;</li> <li>— systems to detect emerging health protection issues;</li> <li>— mechanisms to communicate health information and risks to the public;</li> <li>— public health response plans (e.g. outbreak plan) and capacities.</li> </ul>
<b>Recovering and rebuilding</b>	<p>This analysis area is important because rehabilitation after a disruptive incident needs a planned and participatory process of recovery to help those affected to restore and rebuild the damage to people, infrastructure and the economy.</p> <p>This analysis area will help reviewers to understand the leadership, coordination and resources that empower citizens to rebuild their lives and enable officials to foresee those needs, establish mechanisms, and assign resources before a disruptive incident happens.</p>	<p>Possible inclusions are:</p> <ul style="list-style-type: none"> <li>— sector recovery plans (e.g. health, education, critical infrastructure, business, economy, environment, community);</li> <li>— systems to integrate resilience into recovery;</li> <li>— management of aid and funding;</li> <li>— retrospective assessments after a disruptive incident and future planning and response activities.</li> </ul>
<b>Analysis areas that are more operational</b> <b>Prevent disruptive incidents</b>	<p>This analysis area is important because preventing a disruptive incident from happening through using people, process or technology solutions removes the risk of harm and loss and the need for response and recovery apparatus.</p> <p>This analysis area will help reviewers to understand the ways in which the prevention of disruptive incidents is approached, the balance given to prevention compared to preparedness/response/recovery, and which agencies contribute to these efforts.</p>	<p>Possible inclusions are:</p> <ul style="list-style-type: none"> <li>— the priority given to a prevention portfolio compared to that of preparedness, response and recovery activities;</li> <li>— the range and effectiveness of prevention activities in eliminating risk;</li> <li>— measures of the effectiveness of prevention activities.</li> </ul>

Table B.1 (continued)

Analysis area	Why the analysis area is important to reviewers	What should be included in the scope of each analysis area
<b>Protect from disruptive incidents</b>	<p>This analysis area is important because protecting from disruptive incidents puts in place safeguards to support people who are at risk to increase their ability, capacity and coping strategies to stop disruptive incidents from having as significant an impact when they happen.</p> <p>This analysis area will help reviewers to understand how the host works with those who are at risk to create effective safeguards that protect affected people when a disruptive incident happens.</p>	<p>Possible inclusions are:</p> <ul style="list-style-type: none"> <li>— safeguards that seek to protect those when a disruptive incident happens;</li> <li>— target groups for protection activities and how they are reached and effected by efforts;</li> <li>— strategy and planning of a protection agenda.</li> </ul>
<b>Prepare for disruptive incidents</b>	<p>This analysis area is important because preparing for a disruptive incident occupies significant resources due to its criticality so the broadest range of international feedback should inform continual improvement and/or cost reduction.</p> <p>This analysis area will help reviewers to understand if the resource available for preparations is proportionate, focused on the highest need, and deployed on activities that are having impact on enhancing necessary preparations.</p>	<p>Possible inclusions are:</p> <ul style="list-style-type: none"> <li>— preparations made by all interested parties and partners;</li> <li>— activities focusing on the preparedness of businesses and citizens;</li> <li>— detection, monitoring equipment (e.g. early warning systems and associated communication systems to interested parties and community groups).</li> </ul>
<b>Respond to disruptive incidents</b>	<p>This analysis area is important because responding to a disruptive incident is the frontline activity that saves people and assets from negative effects so should be planned and delivered effectively to lessen the impact of a disruptive incident.</p> <p>This analysis area will help reviewers to understand how a response is planned, organized, funded, evaluated and improved, as well as the effectiveness of response systems that aim to reduce injury, loss of life and damage to property in at-risk environments.</p>	<p>Possible inclusions are:</p> <ul style="list-style-type: none"> <li>— response plans, activities, capabilities and capacities;</li> <li>— emergency management infrastructure;</li> <li>— surge capacity;</li> <li>— command and control processes;</li> <li>— interoperability of multi-agency response system (locally, nationally, internationally).</li> </ul>
<b>Health, safety and welfare of staff</b>	<p>This analysis area is important because the health, safety and welfare of staff is, in part, a cultural aspect that provides broader insight into how staff are treated, and how a safety culture pervades operations.</p> <p>This analysis area will help reviewers to understand the host's safety culture, how it treats its staff, the provisions it makes before, during and after operations to ensure ongoing welfare, and, in general, the value it places on safety.</p>	<p>Possible inclusions are:</p> <ul style="list-style-type: none"> <li>— dimensions of what the host's safety culture involves and how it is propagated throughout the organization;</li> <li>— how health and welfare of staff is ongoing before, during and after deployments;</li> <li>— auditing processes for the health, safety and welfare of staff.</li> </ul>

**Table B.1** (continued)

<b>Analysis area</b>	<b>Why the analysis area is important to reviewers</b>	<b>What should be included in the scope of each analysis area</b>
<b>Training and development</b>	<p>This analysis area is important because the training and development of staff is essential when there are long durations between deployments or high staff turnover. Meaningful skills can fade and can compromise the effectiveness of the response, and there are fewer opportunities to improve because of the lack of lessons learned.</p> <p>This analysis area will help reviewers to understand how the development of staff is ensured through a systemized programme of training and how that is regularly evaluated as being fit for the changing context.</p>	<p>Possible inclusions are:</p> <ul style="list-style-type: none"> <li>— availability of training, drills and exercises for all aspects of emergency response and recovery;</li> <li>— measures of effectiveness (e.g. attendance rates, pass rates, how skills are enhanced, staff retention);</li> <li>— reputation of programmes;</li> <li>— processes for progression and promotion based on competence that are transparent.</li> </ul>
<b>Call management and incident support</b>	<p>This analysis area is important because call management and incident support is a critical function to ensure the ongoing support to an incident is effective, tailored and dynamic in scale and provides consistent command using established roles, processes and protocols.</p> <p>This analysis area will help reviewers to understand how control rooms and command centres are activated, managed, led and operate proportionately to the incident, and the effect they have on incident response.</p>	<p>Possible inclusions are:</p> <ul style="list-style-type: none"> <li>— control rooms and command centres that are operated during emergencies;</li> <li>— protocols for the activation of command centres;</li> <li>— roles, responsibilities and processes before, during and after emergencies;</li> <li>— roles and processes for small, medium and large incidents, and incidents with special risks.</li> </ul>

## **Annex C**

### **(informative)**

### **Example of an evidence-recording template**

This annex provides an example of a template to record evidence from the document review, the review visit and other information, see [Table C.1](#). It uses the analysis systems to provide indicative information for reviewers on issues to explore and record for each analysis system. A new template should be completed for each analysis area.

Table C.1 — Example of an evidence recording template

Recording information for one analysis area to form an opinion	Views of performance
<b>STRATEGY, VISION AND LEADERSHIP</b>	
<b>Strategy</b>	Strengths:
The host:	Areas for improvement:
— aligns strategy with statutory responsibilities and guidance;	Additional questions to ask:
— understands integrated risk;	
— considers resilience/vulnerability of the public.	
<b>Leadership focus</b>	
The host:	Strengths:
— aligns vision and priorities through shared strategies, policies, etc;	Areas for improvement:
— creates an organization’s culture, identity and role that is fit-for-purpose;	Additional questions to ask:
— employs evidence-led consideration of future risks;	
— communicates strategy to staff and partners.	
<b>INTELLIGENCE</b>	
<b>Using external and internal data</b>	
The host:	Strengths:
— takes an approach to risk that is evidence-led and recognizes changing environments;	Areas for improvement:
— understands the credibility of information (e.g. sources, breadth, independence, flaws);	Additional questions to ask:
— has appropriate ways of analysing data.	
<b>Strategic collaborations</b>	
The host:	Strengths:
— collaborates with partners and shares information;	Areas for improvement:
— has collaborations that are exercised.	Additional questions to ask:
<b>Exploring social/physical environment</b>	
The host:	Strengths:
— investigates risks and the changing environment;	Areas for improvement:
— prepares to respond to changes.	Additional questions to ask:



Table C.1 (continued)

Recording information for one analysis area to form an opinion	Views of performance
<b>MANAGEMENT OF PROCESSES, SYSTEMS AND PLANNING, INCLUDING AUDITING</b>	
<b>Management structure</b> The host: <ul style="list-style-type: none"> <li>— has clear roles and responsibilities that are followed;</li> <li>— has succession plans in place.</li> </ul>	Strengths: Areas for improvement: Additional questions to ask:
<b>Planning operations</b> The host: <ul style="list-style-type: none"> <li>— involves partners, staff and the public in the design and delivery of activities to improve responsiveness to local needs;</li> <li>— exercises plans;</li> <li>— uses information (e.g. risk analyses, vulnerability analysis) to develop plans (e.g. strategic plans, mutual aid plans).</li> </ul>	Strengths: Areas for improvement: Additional questions to ask:
<b>Sustainable resource management</b> The host: <ul style="list-style-type: none"> <li>— equips and trains its teams of staff;</li> <li>— allocates resources using the strategy;</li> <li>— receives feedback on matters effecting the impact of its delivery;</li> <li>— considers the sustainability of resources (e.g. people, technology).</li> </ul>	Strengths: Areas for improvement: Additional questions to ask:
<b>Corporate risks</b> The host: <ul style="list-style-type: none"> <li>— has clear understanding of its corporate risks;</li> <li>— identifies, assesses and manages corporate risks.</li> </ul>	Strengths: Areas for improvement: Additional questions to ask:
<b>Supporting functions</b> The host: <ul style="list-style-type: none"> <li>— has effective administrative processes to support operational units (e.g. finance, human resources, training, innovation processes).</li> </ul>	Strengths: Areas for improvement: Additional questions to ask:

Table C.1 (continued)

Recording information for one analysis area to form an opinion	Views of performance
<p><b>Continuity of service</b></p> <p>The host:</p> <ul style="list-style-type: none"> <li>— knows how it will continue to work when there are disruptions to its service;</li> <li>— has exercised continuity plans.</li> </ul> <p><b>Regular performance monitoring</b></p> <p>The host:</p> <ul style="list-style-type: none"> <li>— has a performance management system including processes and measures (e.g. value for money, efficiency and effectiveness measures);</li> <li>— reviews the performance of teams and individuals against regulations and standard operating procedures;</li> <li>— sets and communicates the level of expected performance;</li> <li>— addresses under-performance and makes improvements.</li> </ul>	<p>Strengths:</p> <p>Areas for improvement:</p> <p>Additional questions to ask:</p> <p>Strengths:</p> <p>Areas for improvement:</p> <p>Additional questions to ask:</p>
<p><b>Auditing</b></p> <p>The host:</p> <ul style="list-style-type: none"> <li>— encourages internal and external audits, planned inspections and individual appraisals;</li> <li>— conducts after-incident reviews;</li> <li>— benchmarks team and individual performance;</li> <li>— shares the results of audits with partners to seek feedback.</li> </ul>	<p>Strengths:</p> <p>Areas for improvement:</p> <p>Additional questions to ask:</p>
<p><b>Learning from itself and others</b></p> <p>The host:</p> <ul style="list-style-type: none"> <li>— learns from its own experience and after-incident reviews;</li> <li>— compares across departments and organizations;</li> <li>— reviews and improves activities on a planned basis.</li> </ul>	<p>Strengths:</p> <p>Areas for improvement:</p> <p>Additional questions to ask:</p>

Table C.1 (continued)

Recording information for one analysis area to form an opinion	Views of performance
<b>COORDINATION AND COMMUNICATION OF OPERATIONS</b>	
<b>Coordinating resources and partners</b>	
The host: <ul style="list-style-type: none"> <li>— encourages multi-agency working (e.g. regular interactions, exercising, joint planning);</li> <li>— has ways of achieving the necessary alignment on delivery (e.g. command structure, mobilizing policies, norms, standard operating procedures, guidance);</li> <li>— has an effective process for conflict resolution.</li> </ul>	Strengths: Areas for improvement: Additional questions to ask:
<b>Communicating effectively internally and externally</b>	
The host: <ul style="list-style-type: none"> <li>— has internal communication protocols and interagency communication channels;</li> <li>— understands what partners need to do, how to do this and protocols for doing this.</li> </ul>	Strengths: Areas for improvement: Additional questions to ask:
<b>Notifying senior leaders quickly</b>	
The host: <ul style="list-style-type: none"> <li>— has processes for notifying senior leaders quickly when situations change with significant implications.</li> </ul>	Strengths: Areas for improvement: Additional questions to ask:
<b>DELIVERY OF OPERATIONS</b>	
<b>Delivery approach</b>	
The host: <ul style="list-style-type: none"> <li>— has a clear approach to delivery with responsibilities that align to the strategy;</li> <li>— gives staff the required authority to deliver activities;</li> <li>— has the right breadth of capabilities.</li> </ul>	Strengths: Areas for improvement: Additional questions to ask:

Table C.1 (continued)

Recording information for one analysis area to form an opinion	Views of performance
<p><b>Managing effective and efficient on-site delivery</b></p> <p>The host:</p> <ul style="list-style-type: none"> <li>— has suitable processes for delivery (e.g. activation of operational plans, deployment protocols, situational awareness, prioritization, standard operating procedures, supervision, decision logs, exercising routines);</li> <li>— is able to deliver the range of functions expected of the analysis area.</li> </ul>	<p>Strengths:</p> <p>Areas for improvement:</p> <p>Additional questions to ask:</p>
<p><b>Autonomy of operating units</b></p> <p>The host:</p> <ul style="list-style-type: none"> <li>— has established the extent to which it encourages decisions to be made where and when needed.</li> </ul>	<p>Strengths:</p> <p>Areas for improvement:</p> <p>Additional questions to ask:</p>
<p><b>Interpreting feedback from beneficiaries and other interested parties</b></p> <p>The host:</p> <ul style="list-style-type: none"> <li>— understands feedback from beneficiaries and other interested parties and uses it to inform delivery;</li> <li>— responds to feedback by changing delivery;</li> <li>— raises significant performance issues to leaders.</li> </ul>	<p>Strengths:</p> <p>Areas for improvement:</p> <p>Additional questions to ask:</p>

## **Annex D**

### **(informative)**

### **Example peer review visit timetable**

[Table D.1](#) gives an example timetable of how the review visit could be structured to review three analysis areas:

- governance of risk management;
- community resilience;
- public health.

The timetable can be adapted to work over any time period in accordance with the time available for the review.

**Table D.1 — Example peer review visit timetable**

<b>Session no.</b>	<b>Governance of risk management</b>	<b>Community resilience</b>	<b>Public health</b>
1	Meet the person with the authority for the governance of risk management.	Meet the person with the authority for community resilience. Presentations and interviews.	Site visit to public health facility 1. Discussions with public health managers.
2	Presentations and interviews on the governance of risk management.	Community resilience focus group with officials.	Site visit to public health facility 2. Discussions with public health managers.
3	Governance of risk management focus group.	Community resilience focus group with voluntary entities.	Public health focus group.
4	Urban development presentations and interviews.	Community resilience focus group with people from the community.	Interviews with interested parties.
5	Reviewers reflect individually and collectively on the analysis area to identify initial feedback.	Reviewers reflect individually and collectively on the analysis area to identify initial feedback.	Reviewers reflect individually and collectively on the analysis area to identify initial feedback.
6	Reviewers meet with staff and elected officials from the host to discuss initial feedback.	Reviewers meet with staff and elected officials from the host to discuss initial feedback.	Reviewers meet with staff and elected officials from the host to discuss initial feedback.

## Annex E (informative)

### Generic discussion points and questions to ask about each analysis area

This annex describes questions that reviewers should ask about analysis areas in interviews or focus groups during the peer review process, see [Table E.1](#).

**Table E.1 — Questions for the peer review process**

<b>Strategy, vision and leadership</b>	
1.	Please describe your organization's strategy and plan for the analysis area.
2.	How does this strategy align with the strategies for other analysis areas?
3.	How do your leaders provide the strategic direction to the staff on the analysis area?
<b>Intelligence</b>	
4.	Please describe to what extent information from other organizations influence your organization's strategy for the analysis area.
5.	What role do interested parties from these other organizations have in developing the strategy for the analysis area?
<b>Management of processes, systems and planning, including auditing</b>	
6.	Please describe your management structure for managing the analysis area.
7.	How are operational plans for the analysis area developed within your organization?
8.	How are your organization's resources allocated to deliver the strategy for managing the analysis area?
9.	How are the overall corporate risks managed for the analysis area within your organization?
10.	Please describe the support roles used within your organization for managing the analysis area.
11.	How do these roles (e.g. finance and human resources) assist in the analysis area?
12.	What plan does your organization have for business continuity for the analysis area?
13.	What is the process for monitoring the performance of your organization in the analysis area?
14.	What is the process for continued learning (lessons learnt) on the analysis area?
<b>Coordination and communication of operations</b>	
15.	Please describe the coordination that exists between partners on the analysis area during emergencies.
16.	What coordination is there between partners on the analysis area during non-emergencies?
17.	How are significant and urgent matters communicated on the analysis area?
<b>Delivery of operations</b>	
18.	Please describe how effectiveness is managed when delivering the analysis area.
19.	How does feedback influence the delivery of the analysis area?

## Annex F (informative)

### Example form for reviewer to record information

This annex provides an example of a form that can be used by a reviewer to record information from the review activities.

Analysis area being reviewed: \_\_\_\_\_ Date: \_\_\_\_\_

Details of the session being reviewed	
<i>Name of the leader of the session:</i>	<i>Organization the leader belongs to:</i>
<i>Information received in session:</i>	
Evaluation of the session	
<i>Good practice:</i>	
<i>Opportunities:</i>	



## Bibliography

- [1] ISO 31000, *Risk management — Guidelines*
- [2] SHAW, D., FATTOUM, A., MORENO, J. and BEALT, J. (2020) A structured methodology to peer review disaster risk reduction activities: The Viable System Review. *International Journal of Disaster Risk Reduction*. Volume 46. <https://doi.org/10.1016/j.ijdrr.2020.101486>
- [3] Local Government Association and Chief Fire Officers Association (CFOA). *Operational assessment and fire peer challenge: Toolkit*. Local Government Association, London, 2015
- [4] SHAW D., NORRIS D. *The Analysis Framework Document*. The University of Manchester, UK, 2018
- [5] United Nations (UN). *Sustainable Development Goals*. Available from [viewed 2018-10-11]: <https://www.un.org/sustainabledevelopment/>
- [6] UNISDR. *UNISDR Preliminary Disaster Resilience Scorecard for Cities*. UNDRR, 2017. Available from [viewed 2018-10-11]: <http://www.unisdr.org/we/inform/publications/53349>
- [7] United Nations Office for Disaster Risk Reduction (UNDRR). *Sendai Framework for Disaster Risk Reduction 2015–2030*. UNDRR, 2015. Available from [viewed 2018-10-11]: <https://www.unisdr.org/we/coordinate/sendai-framework>
- [8] United Nations Office for Disaster Risk Reduction (UNISDR). *Essentials 1-10, Guidance Documents: The Ten Essentials*. UNISDR. Available from [viewed 2018-10-11]: <https://www.unisdr.org/campaign/resilientcities/home/toolkitblkitem/?id=1>
- [9] OLDHAM, K. (2019) Final Report of UScore2: *City-to-city local level Peer Review on Disaster Risk Reduction*. UScore2 Project. ECHO/SUB/2016/743543/PREV04





## Bureau of Indian Standards

BIS is a statutory institution established under the *Bureau of Indian Standards Act, 2016* to promote harmonious development of the activities of standardization, marking and quality certification of goods and attending to connected matters in the country.

### Copyright

BIS has the copyright of all its publications. No part of these publications may be reproduced in any form without the prior permission in writing of BIS. This does not preclude the free use, in the course of implementing the standard, of necessary details, such as symbols and sizes, type or grade designations. Enquiries relating to copyright be addressed to the Head (Publication & Sales), BIS.

### Review of Indian Standards

Amendments are issued to standards as the need arises on the basis of comments. Standards are also reviewed periodically; a standard along with amendments is reaffirmed when such review indicates that no changes are needed; if the review indicates that changes are needed, it is taken up for revision. Users of Indian Standards should ascertain that they are in possession of the latest amendments or edition by referring to the website- [www.bis.gov.in](http://www.bis.gov.in) or [www.standardsbis.in](http://www.standardsbis.in).

This Indian Standard has been developed from Doc No.: MSD 17 (21917).

### Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

## BUREAU OF INDIAN STANDARDS

### Headquarters:

Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi 110002  
Telephones: 2323 0131, 2323 3375, 2323 9402

Website: [www.bis.gov.in](http://www.bis.gov.in)

### Regional Offices:

	Telephones
Central : 601/A, Konnectus Tower -1, 6 <sup>th</sup> Floor, DMRC Building, Bhavbhuti Marg, New Delhi 110002	{ 2323 7617
Eastern : 8 <sup>th</sup> Floor, Plot No 7/7 & 7/8, CP Block, Sector V, Salt Lake, Kolkata, West Bengal 700091	{ 2367 0012 2320 9474
Northern : Plot No. 4-A, Sector 27-B, Madhya Marg, Chandigarh 160019	{ 265 9930
Southern : C.I.T. Campus, IV Cross Road, Taramani, Chennai 600113	{ 2254 1442 2254 1216
Western : Plot No. E-9, Road No.-8, MIDC, Andheri (East), Mumbai 400093	{ 2821 8093

**Branches :** AHMEDABAD. BENGALURU. BHOPAL. BHUBANESHWAR. CHANDIGARH. CHENNAI. COIMBATORE. DEHRADUN. DELHI. FARIDABAD. GHAZIABAD. GUWAHATI. HIMACHAL PRADESH. HUBLI. HYDERABAD. JAIPUR. JAMMU & KASHMIR. JAMSHEDPUR. KOCHI. KOLKATA. LUCKNOW. MADURAI. MUMBAI. NAGPUR. NOIDA. PANIPAT. PATNA. PUNE. RAIPUR. RAJKOT. SURAT. VISAKHAPATNAM.