

Experience, best practices and lessons learned related to improving coherence and coordination of capacity-building efforts

Synthesis of submissions received by the Paris Committee on Capacity-building

I. Introduction

A. Mandate and background

1. Established at COP 21 in 2015, the Paris Committee on Capacity-building (PCCB) addresses current and emerging gaps and needs in implementing and further enhancing capacity-building in developing countries.¹

2. The priority areas of the PCCB are as follows:²

(a) Enhancing coherence and coordination of capacity-building under the Convention with a focus on avoiding duplication of efforts, including through collaboration with bodies under and outside the Convention that engage in activities related to capacity-building, as appropriate and in accordance with their respective mandates;

(b) Identifying capacity gaps and needs, both current and emerging, and recommending ways to address them;

(c) Promoting awareness-raising, knowledge- and information-sharing and stakeholder engagement with bodies and relevant actors under and outside the Convention, as appropriate and in accordance with their respective mandates.

3. As part of its continuing efforts to advance work under Priority Area A mentioned in paragraph 2 (a) above, the PCCB determined in its 2021-2024 workplan, to make a call for submissions from Parties and non-Party stakeholders on the topic of “Experience, best practices and lessons learned related to improving coherence and coordination of capacity-building efforts”. This call for submissions was published on 23 August 2022 on the dedicated PCCB web page and closed on 31 October 2022.

4. Since early 2021, the PCCB has advanced considerably with regard to supporting coherence and coordination of capacity-building across bodies, entities and processes under the UNFCCC through the establishment and implementation of the information coordination group (ICG) for capacity-building under the Convention and the Paris Agreement.³

5. To complement this ongoing work under the ICG, this call for submissions primarily aimed to gather information on efforts related to coherence and coordination of capacity-building undertaken by bodies and under processes outside the Convention and the Paris Agreement, including, but not limited to, efforts of government agencies, civil society organizations, development cooperation agencies, United Nations agencies and international organizations, private sector organizations, universities and research institutions.

6. The submissions and this synthesis report will inform upcoming deliverables under Activity A.2 and A.3.1 of the 2021-2024 PCCB workplan, including recommendations to COP 28 and CMA 5 on how to improve coherence and coordination of capacity-building and avoid duplication of efforts and a dedicated technical session on coherence and coordination at the 5th Capacity-building Hub at COP 28.

¹ Decision 1/CP.21, para. 71.

² Decision 9/CP.25, para. 9.

³ For more information on the ICG see: <https://unfccc.int/PCCB-ICG>.

B. Objective

7. The objective of this document is to synthesize inputs received in 2022 in response to the call for submissions mentioned in paragraph 3 above, with a view to:

- (a) Sharing concrete examples, good practice and lessons learned on the topic; and
- (b) Providing a knowledge base for further work by the PCCB related to enhancing the coherence and coordination of capacity-building efforts under the Convention and the Paris Agreement.

C. Scope of the report

8. A total of five submissions were received and are synthesized in this report:

(a) One submitting entity identified as a university/education/training organization; one identified as a research organization; one as a UN and affiliated organization; one as an international network, coalition, or initiative, and one as a public interest group.

(b) Three submitting entities are based in developed countries, and two are based in developing countries.

(c) Two submitting entities indicated their scale of operation as ‘global’. one indicated ‘national’ and transboundary’, one indicated ‘local’, ‘national’, and ‘regional’, and one did not specify their scale of operation.

(d) Two entities are operating in Asia-Pacific, one in North America, one in Europe, and one in Africa.

9. This document aims to provide a synthesis rather than an exhaustive account of all inputs received by the submitting entities. References are intended to be illustrative and facilitative for follow-up rather than a direct reflection of the viewpoints and areas of work of submitting entities. All received submissions are available on the PCCB submissions web page for reference.⁴

II. Synthesis of the submissions

10. This chapter contains five subchapters. Chapter II.A presents good practices of coherence and coordination of capacity-building at different levels. Chapter II.B explores necessary requirements for effective coherence and coordination efforts. Chapter II.C highlights existing gaps with regard to coherence and coordination of capacity-building, while Chapter II.D outlines proposed actions to be taken by capacity-building recipients and providers to enhance the coherence and coordination of capacity-building. Chapter II.E provides a selection of useful resources related to the topic of “improving coherence and coordination of capacity-building efforts”.

A. Good practices of coherence and coordination of capacity-building efforts at the international, regional, and national/subnational level

International Level

11. With regard to coherence and coordination good practices at international level, one submission highlights the importance of **multilateral partnerships** to improve coherence and coordination of capacity-building. One example provided, the Capacity Building in Higher Education action, supports transnational cooperation projects, based on multilateral partnerships, primarily between higher education institutions from EU member states or countries associated to the Programme and third countries not associated to the Programme. The aim of these projects is to support eligible third countries not associated to the Programme to, inter alia, modernize, internationalize and increase access to higher education, and address the challenges facing their higher education institutions and systems. Among the capacity-building project strands participating

⁴ Available at: <https://unfccc.int/topics/capacity-building/resources/submissions-to-the-paris-committee-on-capacity-building-pccb#Enhancing-coherence-and-coordination-of-capacity-building>.

organizations can choose from is one that is focused on: Partnerships for transformation in higher education, which aim to achieve a wider impact on innovation, university/business relations, and institutional governance.⁵

12. As another example of a major coordinated international effort aimed at the implementation of coherent capacity-building efforts at all levels provided in the same submission, the World Heritage Capacity Building Strategy focuses on building capacity regarding the credibility of the World Heritage List, improving conservation practice and communication, and bringing the community into World Heritage processes. The strategy covers three levels of implementation. International and regional level activities are foreseen, and individual States Parties are urged to develop national capacity-building strategies to meet their specific needs. The strategy is implemented using a variety of capacity-building providers at the international, regional, national, and local levels.⁶

13. Another submitter highlights the need for **partner engagement tools and systems** in the capacity-building process.⁷ For example, the NDC Partnership provides the Country Engagement Opportunities Update (CEOU), bi-monthly partner coordination calls, an online file-sharing space, and a knowledge management system, in order to enhance coordination of partner support to countries. Specifically, CEOU is a monthly email update shared with partners that summarizes the NDC Partnership's current work across developing countries, and circulates requests for support submitted by developing country members. The bi-monthly partner coordination call is designed to share updates and opportunities regarding NDC Partnership's engagement with countries, and serves as a space to address questions from partners. The online file-sharing space is created to keep track of each country's Partnership Plans, RSLs, Consolidated Partner Response Letters, scoping reports, as well as partner coordination call reports. Finally, the Partnership's knowledge management system collates all country requests into a filterable database, where partners can search for requests by sector, topic, country, region, and support status.

14. Another submitter notes the importance of a **state-driven and whole-of-society approach** in designing capacity-building efforts in the context of Disaster Risk Reduction. The Strategic Approach to Capacity Development for Implementation of the Sendai Framework for Disaster Risk Reduction constitutes an international effort that provides a list of guidelines for policymakers and capacity-building providers to improve coherence and coordination of capacity-building at all levels (see Box 1).⁸

Box 1: Strategic Approach to Capacity Development for Implementation of the Sendai Framework for Disaster Risk Reduction⁹

The Sendai Framework for Disaster Risk Reduction 2015-2030 (Sendai Framework) recognizes the state's primary role in facilitating the achievement of its disaster risk reduction (DRR) goal and priorities and highlights the criticality of sharing these responsibilities with other stakeholders and realizing an all-of-society approach.

To improve the coordination and quality of capacity development efforts, the strategic approach identifies the following high-value 'anchors' for key decision-makers and capacity development champions:

- 1) Promoting awareness of the need for capacity development at all levels and by all stakeholders, and supporting the development of national and local strategic plans;

⁵ For more information see: <https://erasmus-plus.ec.europa.eu/opportunities/opportunities-for-organisations/cooperation-among-organisations-and-institutions/capacity-building-higher-education>.

⁶ For more information see: <https://www.iccrom.org/themes/world-heritage/world-heritage-capacity-building/world-heritage-capacity-building-strategy#:~:text=The%20World%20Heritage%20Capacity%20Building,community%20into%20World%20Heritage%20processes>.

⁷ NDC Partnership.

⁸ UNDRR.

⁹ For more information see: <https://www.undrr.org/publication/strategic-approach-capacity-development-implementation-sendai-framework-disaster-risk>

- 2) Establishing nationally-based and Sendai Framework-relevant evaluation indicators that enable measurement of capacity development outputs, outcomes, and impacts;
- 3) Expanding South-South, Triangular, and other partnership and cooperation opportunities through the creation of a global capacity development provider marketplace;
- 4) Demystifying capacity needs by providing nationally- and locally-relevant, Sendai Framework-focused target capability standards;
- 5) Strengthening advancement and professionalization of DRR capacities and capabilities by leveraging on existing and/or establishing regional and national capacity development institutes.

Regional Level

15. As regards coherence and coordination good practices at regional level, one submission highlights the importance of regional cooperation, in particular **South-South cooperation** between organizations in developing countries, in order to gather local knowledge and strengthen capacities to achieve climate goals on the ground.¹⁰ The same submitter provides an example of a national centre that provides capacity-building support and engages in partnership with other organizations across developing countries in the same region (see Box 2).

16. Another submission makes reference to its partnership with the UNFCCC **Regional Collaboration Centres (RCCs)** and other partners working at a regional level to enhance coherence and coordination of climate-related capacity-building efforts in developing countries.¹¹ For example, the NDC Partnership collaborated with RCCs at different UNFCCC regional climate weeks to host peer exchanges, bringing together developing countries and partners to create opportunities for exchange.

17. One submission further points to dedicated platforms for coordination and knowledge- and information-sharing on **globally accessible social networks**, such as LinkedIn, as a good practice. The National Centre for Emissions Management (KOBiZE) in Poland has been implementing a LIFE VIIIEW 2050 project focused on the assessment of the functioning of the European emissions trading system (EU ETS) and its impacts and interactions with other EU policies and other international systems. In March 2022, KOBiZE created a LinkedIn group, labelled as LIFE VIIIEW 2050 Expert Group, to promote the LIFE VIIIEW 2050 project, publicise its key (selected) deliverables, and encourage the exchange of views and technical expertise among the members of the Group. According to the submitter, the LinkedIn Group effectively contributes to experience and knowledge sharing among various stakeholders and enhances coherence and coordination of capacity-building.¹²

Box 2: The Climate Change Competencies Center (4C Morocco)

The Climate Change Competencies Center (4C Morocco) is a national platform for dialogue and capacity-building set up to support the design and the implementation of climate policies, at the local, regional, and African level. 4C Morocco, established as a Public Interest Grouping in 2016, brings together more than 40 members, from various backgrounds, including the public and private sectors, the scientific research community, civil society, and local authorities.

Regionally, the Centre has built and promoted many partnerships with developing country organizations, such as the Congo Basin Climate Commission, the Climate Commission for the Sahel Region, and the Small Island States Climate Commission to provide support for the creation of regional climate funds, the design, financing, and deployment of bankable projects, and capacity building on climate topics in general.

¹⁰ 4C Morocco.
¹¹ NDC Partnership.
¹² The National Centre for Emissions Management.

National and Subnational Level

18. With regard to good practices of coherence and coordination of capacity-building efforts at the national level, one submission highlights the need for developing country Parties to engage **international donors and technical agencies** to support and strengthen the capacity-building system in developing countries and base the funding provided on objectives, needs, and strategies set by developing countries.¹³ It is noted that through unifying aid and channelling aid according to domestic priorities, transaction costs can be reduced and the ownership, effectiveness, and sustainability of climate-related capacity-building efforts can be enhanced.

19. In managing overlaps and duplication in capacity-building, two submissions point to the effectiveness of creating **coordination mechanisms** that oversee capacity-building efforts at the national level, offer complete and comprehensive information on existing needs and initiatives, and enable all regional, national, and local organizations to acquire relevant knowledge and skills.¹⁴ 4C Morocco, for instance, coordinates national capacity-building efforts and offers information on what has been achieved, what is being implemented, and what is planned in terms of climate-related capacity-building. Its unique institutional and legal status allows the Centre to maintain a constant dialogue with public actors and local authorities' representatives that oversee the elaboration and implementation of national and local development strategies.

20. One submitter describes their efforts to enhance coherence and coordination of capacity-building and to achieve more sustainable outcomes by setting up long-term **capacity retention systems** that can serve future generations. The organization does so by promoting partnerships with universities and research centres, due to the important role of scientific research in strengthening and retaining national capacities. This important role of research institutions was also underlined by another submission.¹⁵ Linked to education, another measure highlighted by a submission is offering long-term training for young people aimed at creating lasting, active networks of young climate experts.¹⁶

21. Another submission lists Request for Support Letters (RSLs) and Partnership Plans as the primary tools used by NDC Partnership to **streamline aid** to countries through a manageable and coordinated process. RSLs are a flexible tool that countries can use to submit requests, after which the Support Unit will respond to the country with a consolidated response, listing the partners with interest, resources, or expertise to deliver specific requests. In addition, Partnership Plans (or stand-in documents) identify national climate priorities and connect those to support from implementing partners and development partners.¹⁷

22. The same submission highlights that the NDC Partnership works through its **national focal points** within its country members to enhance coherence and coordination of climate-related capacity-building efforts in developing countries at the subnational level. As an example, it is noted that through the NDC Partnership's Climate Action Enhancement Package support, ICLEI – Local Governments for Sustainability mobilized subnational entities in the NDC revision process to explore how subnational contributions can scale up NDC targets and build local capacity to accelerate NDC implementation, as well as trained nine municipalities to improve their access to climate finance.¹⁸

23. Finally, two submissions emphasize the need to maintain **consistent engagement** between national and subnational and local stakeholders, in order to be aware of changing needs and adapt capacity-building interventions accordingly.¹⁹ One submitter made reference to the example of Making Cities Resilient 2030 and how the initiative connects governments at different levels to build urban resilience (see Box 3).²⁰

¹³ 4C Morocco.

¹⁴ NDC Partnership, 4C Morocco.

¹⁵ 4C Morocco.

¹⁶ 4C Morocco.

¹⁷ NDC Partnership.

¹⁸ For more information see: <https://ndcpartnership.org/caep>.

¹⁹ NDC Partnership, 4C Morocco.

²⁰ UNDRR.

Box 3: Making Cities Resilient 2030

The MCR2030 (Making Cities Resilient 2030) initiative aims to ensure cities become inclusive, safe, resilient and sustainable by 2030, contributing directly to the achievement of the Sustainable Development Goal 11 (SDG11) and other global frameworks including the Sendai Framework for Disaster Risk Reduction, the Paris Agreement and the New Urban Agenda. Today, the initiative covers 1,353 cities, with a population of over 380 million, and over 280 partners which offer their services on disaster and climate risk reduction to the cities.

To enhance coherence and coordination of its work, the MCR2030 involves cross-cutting elements, strengthening vertical links between local governments, national governments and national associations of local governments; strengthening horizontal links amongst local partners to ensure sustainability; connecting cities with cities to learn and share.

B. Requirements for effective coherence and coordination efforts

24. One submission notes that coordination and coherence-related arrangements, mechanisms, platforms, and tools need to be designed and set up following **substantive stakeholder engagement and review of existing climate/development strategies** to ensure efficient, effective and inclusive capacity-building efforts that are aligned with local needs and priorities.²¹ The same submission makes reference to the NDC Partnership's Partnership Plans in highlighting the need for stakeholder engagement and comprehensive strategy review to achieve effective coherence and coordination efforts (see Box 4).

Box 4: NDCP Partnership Plans

The NDCP's Partnership Plans serve as centralized NDC implementation frameworks and all stakeholders are involved in designing the plan and all existing climate/development are considered, enabling a whole-of-society representation and avoiding duplication of efforts.

The development process for Partnership Plans is multi-stakeholder and collaborative. It includes Partnership members, private-sector entities, civil society, women and youth, research institutions and multiple levels of government across sectors and at subnational levels. Partnership Plans are also designed to be gender and youth-responsive.

Systematic monitoring of progress, effectiveness, and impact of capacity-building efforts is enabled due to information stored in one centralized location. The Partnership Plans are typically managed by in-country facilitators who track progress by collecting partner progress updates and consolidating these into quarterly country update reports.

25. Another submitter describes that by setting up multiple **coordination arrangements and mechanisms**, the organization succeeded in ensuring that its capacity-building efforts adhered to local and national priorities and strategies, were systematically monitored for progress effectiveness and impact, meaningfully engaged all stakeholders, and achieved more sustainable results.²² The coordination of arrangements and mechanisms used by the organization included:

(a) Setting up and facilitating constant dialogue with local and national authorities who are members of the organization,

(b) Ensuring capacity-building efforts target key political moments (elaboration of new local development plans, climate policies revision, elaboration of sectoral policies, etc.) to ensure long-term and sustainable impact,

²¹ NDC Partnership.

²² 4C Morocco.

(c) Arrangements to ensure the mainstreaming of climate change into public policy and local planning,

(d) Setting up a department devoted to capacity-building action and dedicated to monitoring its progress, effectiveness and impact,

(e) Setting up dialogue and collaboration arrangements with a wide range of actors in co-designing capacity-building actions.

26. Another submission puts forward that based on the experience with the NDC planning and implementation processes in countries, coherence and coordination efforts need to ensure the **collaboration between lead institutions and sectoral line ministries**.²³ As one example, the submission points to the usefulness of intergovernmental commissions as a coordination mechanism, but notes that for such commissions to be effective they need to be approved at the highest political level and include representatives from civic society, academia, and local government, ensuring an open and transparent process in order for non-governmental representatives to act as interlocutors on behalf of their larger community.

C. Existing gaps with regard to coherence and coordination of capacity-building efforts

27. On the issue of existing gaps with regard to coherence and coordination of capacity-building, one submission notes that climate-related coherence and coordination efforts are impeded in some countries by a lack of **specialized national institutional arrangements** on climate change, such as national climate change coordination bodies or an overarching national climate change policy and strategy. Furthermore, it is noted that the existing climate change institutional and operational arrangements in many countries lack sufficient capacity to effectively coordinate and support climate action.²⁴

28. Another submission emphasizes that strengthening the **tracking of climate/development work** in countries should be an integral element of efforts towards enhancing greater coherence and coordination of capacity-building.²⁵ According to the submitter, enhanced tracking reduces duplication of efforts, by providing countries and development partners with a better understanding of the status of projects, and facilitates learning and replication of successful efforts. Related to this, three submitters highlight the importance of **systematic monitoring** of the progress, effectiveness and impact of capacity-building efforts, and the gathering of regular and reliable data as the basis for capacity-building interventions.²⁶

29. One submission notes that **creating opportunities for exchange**, especially among capacity-building providers, is essential to further enhance the coherence and coordination of capacity-building efforts, given that such exchanges reduce duplication of efforts, increase alignment, and provide opportunities to share lessons learned.²⁷

30. Another submission points to **the limited collaboration between the scientific community and public authorities** as a gap that needs to be addressed if coherence and coordination of capacity-building are to be successfully enhanced.²⁸

31. Finally, one submission notes that **a lack of digital skills** can impede the coordination between governments and their people.²⁹

D. Capacity gaps and capacity-building needs

32. With regard to coherence and coordination within developing country institutions, one submission illustrates the role of capacity-building recipients as **knowledge brokers** in their own

²³ MKSS's Dr. B N College of Architecture for Women, Pune.

²⁴ MKSS's Dr. B N College of Architecture for Women, Pune.

²⁵ NDC Partnership.

²⁶ 4C Morocco, NDC Partnership, MKSS's Dr. B N College of Architecture for Women, Pune.

²⁷ NDC Partnership.

²⁸ 4C Morocco.

²⁹ MKSS's Dr. B N College of Architecture for Women, Pune.

institutions who can ensure the diffusion of knowledge to their peers. In addition, it is noted that developing countries receiving capacity-building support need to enhance **coordination with the various international capacity-building providers** to ensure coherence in the support that is being provided.³⁰

33. Concerning coherence and coordination among capacity-building providers and between providers and recipients of capacity-building, the same submission suggests that a **regular assessment of beneficiaries’ evolving needs and priorities** must occur for providers to be able to effectively respond to these needs. The importance of capacity-building providers offering tailored and flexible support to enhance the impact and effectiveness of interventions – something that new or enhanced coherence and coordination mechanisms can also contribute to – is also underlined.

34. The same submission puts forward that coherence and coordination efforts should aim towards enabling a greater focus on **long-term, systemic capacity-building**, including developing and strengthening national capacity-building systems as well as enabling greater access to support at the local level.

35. Another submission points to need for establishing **effective, efficient and independent national monitoring and statistical systems** that provide regular and reliable data as a prerequisite for effective coherence and coordination efforts.³¹

36. To achieve greater coherence, the same submission recommends setting up **cross-sectoral capacity-building projects** focusing on formalizing institutional links across the diverse and separate existing programmes and organizations working on climate change and other sustainable development issues. According to the submission, such projects would lead to the more efficient delivery of global environmental benefits including by improving the delivery of implementing various multilateral environmental agreements (MEAs) at the national level. At the organizational level, the submission proposes cross-cutting capacity-building projects that focus on improving governance and compliance with MEAs by achieving economies of scale and eliminating inefficiencies in compliance structures and mechanisms. As an example of such inefficiencies, the submission points to separate protected area management systems for forest ecosystems, marine ecosystems and archaeological sites which may result in conflicting or mutually exclusive management approaches.

E. Selection of resources related to improving coherence and coordination of capacity-building

Title/Name	Description	Link
Climate Change Competence Center of Morocco ³²	4C Morocco is a national platform for dialogue and capacity-building for the various actors and a hub for climate change information open to its regional, African and international environment.	Link
Erasmus+ Capacity Building In Higher Education ³³	The Capacity Building in Higher Education (CBHE) action supports capacity-building projects in the field of higher education that are based on multilateral partnerships, primarily between higher education institutions from EU Member states or countries associated to the Programme and third countries not associated to the Programme.	Link
Making Cities Resilient 2030 ³⁴	Making Cities Resilient 2030 (MCR2030) is a cross-stakeholder initiative for improving local resilience through advocacy, sharing knowledge and experiences, establishing mutually reinforcing city-to-city learning networks, injecting technical expertise, connecting multiple layers of government and building partnerships.	Link

³⁰ 4C Morocco.

³¹ MKSSS’s Dr. B N College of Architecture for Women, Pune.

³² Submitted by 4C Morocco.

³³ Submitted by MKSSS’s Dr. B N College of Architecture for Women, Pune.

³⁴ Submitted by UNDRR.

NDC Partnership Country Engagement Strategy ³⁵	This Country Engagement Strategy provides an overview of the NDC Partnership’s approach to providing country support, including its guiding principles and the logic model, as well as its structures, roles and approaches for catalyzing targeted changes.	Link
NDC Partnership Finance Strategy ³⁶	The NDC Partnership’s Finance Strategy explains how Partnership’s efforts can help countries and partners bridge the gap between supply and demand of climate finance through a dedicated menu of eight support services, ranging from building enabling environments to capacity development for mobilizing finance for NDC implementation.	Link
NDC Partnership Knowledge and Learning Strategy ³⁷	The NDC Partnership’s Knowledge and Learning Strategy reflects the NDC Partnership’s Work Program 2021-2025 and the Partnership’s evolving knowledge and learning activities in support of countries’ needs and priorities.	Link
NDC Partnership Knowledge Portal ³⁸	The NDC Partnership Knowledge Portal helps countries to accelerate climate action by providing quick and easy access to data, tools, guidance, good practice, and funding opportunities. The Portal draws together the most relevant resources from partners and other leading institutions.	Link
NDC Partnership “Partnership in Action Report 2022” ³⁹	The NDC Partnership “Partnership in Action Report 2022” provides a broader look at how the NDC Partnership coordinates support to countries.	Link
Regional Collaboration Centers ⁴⁰	The Regional Collaboration Centers (RCCs) support national climate action through capacity-building, technical assistance and strategic networking – sourcing know-how and resources to drive clean development.	Link
Strategic Approach to Capacity Development for Implementation of the Sendai Framework for Disaster Risk Reduction ⁴¹	The Strategic Approach to Capacity Development for Implementation of the Sendai Framework for Disaster Risk Reduction seeks to establish among all stakeholders a common understanding of capacity development within the disaster risk reduction (DRR) context. This Strategic Approach is a resource of empowerment for all relevant capacity development partners and stakeholders.	Link
World Heritage Capacity Building ⁴²	The World Heritage Capacity Building Strategy focuses on building capacity regarding the credibility of the World Heritage List, improving conservation practice and communication, and bringing communities into World Heritage processes.	Link

³⁵ Submitted by NDC Partnership.

³⁶ Submitted by NDC Partnership.

³⁷ Submitted by NDC Partnership.

³⁸ Submitted by NDC Partnership.

³⁹ Submitted by NDC Partnership.

⁴⁰ Submitted by NDC Partnership.

⁴¹ Submitted by UNDRR.

⁴² Submitted by MKSS’s Dr. B N College of Architecture for Women, Pune.