The Institution of Green Engineers

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Call for Book Chapters

Collaborative Authors

HANDBOOK OF PANCHABHUTAS FOR PLANET & PEOPLE:

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Proceedings of IGEN ENVIRONTHON 2025 - Marathon

IGEN ENVIRONTHON 2025

September 13-14 2025

Theme

Integrative & Transdisciplinary Research Approaches Towards COP and SDGs Attainment

Published by The Institution of Green Engineers Press

Hon. Chief Editor

Padma Bhushan Padmashri Dr. A. Sivathanu Pillai

Founder, CEO, and Managing Director of BrahMos Aerospace Board of Governor IGEN

Chief Editor

Prof. Dr Jens Bo Holm-Nielsen

Aalborg University Denmark, Board of Advisor IGEN

Topics

Each Element Carries 9 Chapters

- **Element 01:** Nurturing the EARTH: Pathways to a Sustainable Future (Prithvi), aligned with SDG 2, 5, 12, 13, 15 & COP30
- **Element 02 :** WATER Matters (Jal): Pathways to Clean and Sustainable Use ,aligned with SDG 6, 12, 13, 14 & COP30
- **Element 03:** Burn and Bloom: FIRE Role in Ecosystem Renewal (Agni), aligned with SDG 7, 9, 12, 13
- **Element 04:** AIR We Deserve: Ensuring a Breathable Future (Vayu) , aligned with SDG 3, 9, 11, 13
- **Element 05:** Nurturing the Final Frontier: Sustainable SPACE (Akash), aligned with SDG 4, 7, 16, 17 & COP30

Important Dates

Chapter Willingness Submission
Immediate

Full Chapter Submission
Before August 14, 2025

Acceptance Notification
August 20, 2025

Final Chapter Submission
September 01, 2025

Author Collaboration Criteria

Each chapter must meet the following requirements:

- **Academic Contribution:** Minimum one author must be affiliated with an academic institution (university, research center, or college).
- **Industry Contribution:** Minimum one author must be from industry (company, start-up, or relevant private sector organization).
- **International Collaboration:** Minimum one author must be based outside the country of the primary author's affiliation.
- **Maximum Authors:** A maximum of six authors are permitted per book chapter.

SCAN ME!

For Registration

☑ Only selected chapters will be permitted to present their research work at IGEN ENVIRONTHON 2025, subject to payment of the required conference registration fee. Selected chapters will be published in the conference proceedings and included in the final book publication by THE IGEN PRESS.

Publication INDEXES

paper will: ✅ Be published under IGEN ISBN ✅ Receive a Digital Object Identifier (DOI) for global citation ✅ Come with an Author Publication Certificate ✅ Include a Presenter Certificate ✅ And be eligible for the Best Paper Award Certificate ✅ SDG Contributor Certificate

The Institution of Green Engineers is now officially recognized as a registered Publisher by the Raja Rammohun Roy National Agency for ISBN, Department of Higher Education, Ministry of Education, Gov. of India.

Contact Us www.theigen.org igen.publication@gmail.com #igenKavitha #igenRajeswari +91 93605 03943

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HANDBOOK OF PANCHABHUTAS FOR PLANET & PEOPLE:

Integrative & Transdisciplinary Research Approaches Towards COP and SDGs Attainment

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Hon. Chief Editor

Padma Bhushan Padmashri **Dr. A. Sivathanu Pillai**

Father of BrahMos and Founder, CEO, and Managing Director of BrahMos Aerospace

Board of Governor IGEN

Objectives:

The "Handbook of Pancha Bhutas for Planet & People: Research Pathways Towards COP and the SDGs Attainment" aims to serve as a comprehensive resource compiling research insight, policy frameworks, and community-based solutions aligned with the conservation of the five elements — Earth (Prithvi), Water (Jal), Fire (Agni), Air (Vayu), and Space (Akash). By connecting traditional ecological wisdom with modern scientific research, the book provides actionable pathways to address climate change, advance the United Nations Sustainable Development Goals (SDGs), and contribute meaningful recommendations for global climate negotiations, including COP30. It seeks to inspire policymakers, researchers, educators, and youth to collaborate across disciplines and regions to build resilient, sustainable communities in harmony with nature.

Editors in Chief :

Prof. Dr Jens Bo Holm-Nielsen, Head of Center for Bioenergy and Green Engineering - Aalborg University Denmark, Board of Advisor IGEN

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Call for Authors: Handbook of Pancha Bhutas for Planet & People

The Institution of Green Engineers (IGEN) proudly invites researchers, academics, policymakers, industry professionals, innovators, students and community leaders to contribute to the "Handbook of Panchabhutas for Planet & People: Integrative & Transdisciplinary Research Approaches Towards COP and SDGs Attainment," which will be published as part of the official IGEN ENVIRONTHON 2025 Marathon Proceedings.

This landmark publication will bring together traditional ecological wisdom and modern research to address the conservation and sustainable management of the Five Elements — **Earth (Prithvi), Water (Jal), Fire (Agni), Air (Vayu), and Space (Akash)** — with clear pathways towards achieving the UN Sustainable Development Goals (SDGs) and commitments under COP30.

Big news!

The Institution of Green Engineers is now officially recognized as a registered Publisher by the Raja Rammohun Roy National Agency for ISBN, Department of Higher Education, Ministry of Education, Government of India.

This means your paper will: ☑ Be published under an official ISBN ☑ Receive a Digital Object Identifier (DOI) for global citation ☑ Come with an Author Publication Certificate ☑ Include a Presenter Certificate ☑ And be eligible for the Best Paper Award Certificate.

These recognitions strengthen the visibility and credibility of your contribution, ensuring your work is citable, discoverable, and respected — adding genuine value to your research portfolio while directly shaping sustainability and climate solutions for real-world impact.

Why contribute?

- Publish alongside distinguished thought leaders such as *Padma Bhushan Padmashri Dr. A. Sivathanu Pillai* and *Prof. Dr. Jens Bo Holm-Nielsen*.
- Share your insights and research with a global audience of policymakers, educators, youth, and communities working towards a sustainable future.
- Shape real-world climate action with innovative ideas, policy recommendations, and local solutions.

Who should contribute?

Researchers, faculty, doctoral students, PG students, UG students, policy professionals, industry practitioners, and community leaders from all disciplines are encouraged to submit. Interdisciplinary and transdisciplinary approaches are especially welcomed.

Submission Requirements:

- Authors must submit a full paper (maximum 4 pages) strictly aligned with one of the chapters under any of the Five Elements listed below, following the official IGEN paper format.
- Papers must present original research, review, case studies, policy frameworks, or innovative solutions aligned with the handbook's objectives.
- All submissions will undergo a peer-review process coordinated by the editorial board.

Author Collaboration Criteria

- Academic Contribution: Minimum one author must be affiliated with an academic institution (university, research center, or college).
- Industry Contribution: Minimum one author must be from industry (company, start-up, or relevant private sector organization).

- International Collaboration: Minimum one author must be based outside the country of the primary author's affiliation.
- Maximum Authors: A maximum of six authors are permitted per book chapter.

Important Dates:

- **Chapter Willingness Submission:** If you have decided to contribute a chapter, please **submit your willingness immediately** using the form below https://forms.gle/o1zJc6Kya2vGzbrGA
- **Full Chapter Submission Deadline:** 14th August 2025
- **Acceptance Notification Deadline:** 20th August 2025
- **Final Proceeding Submission after Reviewer Comments - Deadline:** 01st September 2025
- **Presentation at IGEN ENVIRONTHON:** 14th or 15th September 2025
- **Final Chapter Submission after Presentation Judge Comments- Deadline:** 05th October 2025
- **Date of Book Publication:** 22nd October 2025, on IGEN GREENDAY 2025

ENVIRONTHON 2025 Paper Presentation Registration Fee: (after acceptance)

- **South ASIA Pacific Countries** : ₹ 2000(INR) for single Presenter
- **Economically Advanced Countries** : $ 100 (US Dollar) for single Presenter
- **Developing Countries** : $ 50 (US Dollar) for single Presenter
- **Economically developing Countries** : $ 25 (US Dollar) for single Presenter

More details and submission of chapter @

https://conference.theigen.org/environthon25/call_for_chapters/index.html

About IGEN ENVIRONTHON 2025 @

https://conference.theigen.org/environthon25/2025/index.php

WE4GREEN – "Change begins within — align your heart, balance the Panchabhutas, act for climate control, and commit to sustainable action for a thriving planet" Dr. L. Ramesh, President, IGEN.

NINE (09) PROPOSED CHAPTERS

(Under Each of The Five *Panchabhutas* Elements, resulting In a total of Forty-Five (45) chapters for the Book)

ELEMENT 01 : Nurturing the **EARTH**: Pathways to a Sustainable Future (Prithvi) — *Aligned with SDG 1, 2, 5,10,12, 13, 15 & COP30*

Chapter 1: Soil Health Science & Regenerative Practices *(SDG 2, 15)* — Research insights on restoring soil fertility for resilient agriculture.

Chapter 2: Climate-Resilient Crop Systems & Innovation *(SDG 2, 13)* – Studies on climate-smart seeds, sustainable irrigation, and yield stability.

Chapter 3: Agroforestry Models & Integrated Land Research *(SDG 2, 12, 15)* – Evidence-based design of mixed-use landscapes for climate and biodiversity.

Chapter 4: Forest Carbon Stocks & Conservation Research *(SDG 13, 15)* – Measuring forest contributions to carbon balance and ecosystem health.

Chapter 5: Indigenous Land Knowledge – A Research Perspective *(SDG 12, 15)* – Documenting traditional ecological practices and their modern relevance.

Chapter 6: Gender Research in Land Rights & Rural Leadership *(SDG 5, 2)* – Case studies on women's roles in sustainable agriculture and land governance.

Chapter 7: Biodiversity Monitoring & Habitat Restoration Science *(SDG 15, 13)* – Research frameworks for restoring degraded lands and habitats.

Chapter 8: Sustainable Food Value Chains – A Research Outlook *(SDG 12, 2)* – Analyzing food waste, local markets, and circular economy models.

Chapter 9: Nature-Based Climate Solutions for COP30 *(SDG 13, 15)* – Policy briefs and applied research for scaling land-based climate action.

ELEMENT :02 - **WATER** Matters: Pathways to Clean and Sustainable Use — Aligned with SDG 6, 11, 12, 13, 14 & COP30

Chapter 1: Safeguarding Source Waters & River Basins (SDG 6, 13) – Strategies to protect river ecosystems through integrated catchment management.

Chapter 2: Community Rainwater Harvesting & Storage Solutions (SDG 6, 13) – Research on innovative local rainwater systems and climate resilience.

Chapter 3: Circular Water Systems – Recycling & Reuse (SDG 6, 12) – New technologies and community models for closing the water loop.

Chapter 4: Blue Economy & Sustainable Fisheries Innovation (SDG 14, 12) – Sustainable aquaculture and fisheries research for ocean health and livelihoods.

Chapter 5: Water Governance, Policy & Community-Led Models (SDG 6, 12, 16) - Comparative studies on governance frameworks and local participation.

Chapter 6: Climate-Resilient Water Futures – Pathways for COP30 (SDG 6, 13, 14) – Scientific insights and action roadmaps for resilient water systems under global climate agreements.

Chapter 7: Smart Water Futures: Harnessing Artificial Intelligence for Sustainable Water Management and Research (SDG 11, 12, 14) -Leveraging AI and smart technologies to optimize water use, monitoring, and decision-making for climate-resilient communities.

Chapter 8: Innovative Community Rainwater systems for climate resilience and water security (SDG 6, 11, 15) - Designing localized rainwater harvesting models that strengthen community resilience and ensure equitable water access

Chapter 9: Safe water and climate ready sanitation: Pathways to universal access and resilience (SDG 6, 13, 14) -Developing integrated solutions for safe drinking water, sanitation, and hygiene that withstand climate risks and reach all populations.

ELEMENT 03: Burn and Bloom: **FIRE** Role in Ecosystem Renewal (Agni) — Aligned with SDG 7, 9, 11, 12, 13, 17

Chapter 1: Research on Renewable Energy Transitions (SDG 7, 13) – Pathways for scaling solar, wind, and hybrid clean energy systems.

Chapter 2: Community Solar Empowerment Research (SDG 7, 12) – Studies on local solar adoption, energy access, and decentralized solutions.

Chapter 3: Clean Cooking Technologies & Access Research (SDG 7, 12, 13) – Affordable clean cooking innovations for rural and urban households.

Chapter 4: Bioenergy & Waste-to-Power Research (SDG 7, 12) – Turning organic waste streams into sustainable energy sources.

Chapter 5: Smart Grids & Decentralized Power Systems Research (SDG 7, 9) – Advances in grid modernization, mini-grids, and smart distribution.

Chapter 6: Innovations in Energy Storage & Efficiency Research (SDG 7, 9) – Cutting-edge storage solutions and energy-saving technologies.

Chapter 7: Industrial Decarbonisation & Green Tech Research (SDG 9, 12, 13) – Cleaner industry pathways and technology transitions.

Chapter 8: Decarbonising Cities & Sustainable Transport Research (SDG 11, 13, 17) – Urban clean energy, sustainable mobility, and low-carbon systems.

Chapter 9: COP30 Pathways: Youth-Led Clean Energy Innovation (SDG 7, 9, 12) – Showcasing how young innovators and startups can advance global climate goals.

ELEMENT 04: **AIR** We Deserve: Ensuring a Breathable Future (Vayu) — *Aligned with SDG 3, 9, 11, 13 ,17*

Chapter 1: Urban Air Quality Challenges *(SDG 3, 11)* – Understanding urban air pollution sources, exposure, and health risks.

Chapter 2: Pollution Monitoring Research & Smart Technologies *(SDG 9, 11)* – Innovations in sensors, real-time data, and advanced monitoring systems.

Chapter 3: Research on Greener Public Transportation *(SDG 11, 13)* – Sustainable transit systems to reduce emissions and improve air quality.

Chapter 4: Clean Mobility & E-Vehicle Solutions *(SDG 9, 13)* – Policies and technologies for electric vehicles and low-emission mobility.

Chapter 5: Industrial Emissions Reduction Research *(SDG 9, 13,17)* – Cutting industrial air pollution through cleaner production.

Chapter 6: Green Buildings & Healthy Ventilation *(SDG 9, 11)* – Designing urban spaces for better indoor air and energy savings.

Chapter 7: Atmospheric Science & Climate Linkages *(SDG 13)* – Understanding how air quality connects to climate change.

Chapter 8: Air Policy & Healthy Communities *(SDG 3, 11,17)* – Evidence-based policy for clean air and resilient cities.

Chapter 9: Citizen-Led Clean Air Action for COP30 *(SDG 3, 13)* – Community engagement and local solutions for global climate goals.

ELEMENT 05: Nurturing the Final Frontier: Sustainable **SPACE** (Akash) — *Aligned with SDG 4, 7, 8, 16, 17 & COP30*

Chapter 1: Space Technologies for Climate Monitoring Research *(SDG 13, 17)* – Using satellites and remote sensing for global climate insights.

Chapter 2: Satellite Data Research for Smart Agriculture *(SDG 2, 7, 17)* – Applications of space-based data for resilient farming and food security.

Chapter 3: Digital Education for Sustainable Development *(SDG 4, 17)* – E-learning, open data, and capacity building for climate action.

Chapter 4: International Research Collaborations *(SDG 4, 17)* – Cross-border research projects, global knowledge exchange, and innovation.

Chapter 5: Global Energy Governance & Policy Dialogues *(SDG 7, 16, 17)* – Aligning energy transitions with global institutions and equitable access.

Chapter 6: Smart Infrastructure Planning & Research *(SDG 9, 11, 17)* – Using space data for resilient cities, smart grids, and future-ready planning.

Chapter 7: Youth-Led Innovation & Climate Solutions *(SDG 4, 7, 17)* – Empowering young leaders and climate tech start-ups.

Chapter 8: Peace, Security & Climate Diplomacy *(SDG 16, 17)* – How space cooperation supports peaceful solutions and trust-building.

Chapter 9: Partnerships for SDG Impact & COP30 Commitments *(SDG 17)* – Building multi-stakeholder alliances for global climate goals.