



## **UNEP/UNESCO/BMUV Environmental Management Training Program for Developing Countries | 2022-23 call for applications**

In support of both the Sustainable Development Goals and the Paris Climate Agreement, Technische Universität Dresden is offering a range of integrated environmental management courses for developing countries including emerging economies in 2022 (online-based format) and 2023 (on-site course):

84<sup>th</sup> UNEP/UNESCO/BMUV International Short Course on

**Urban Nature-Based Solutions (SC84)**

Application period: **08 March to 13 April 2022**

Course period: **01 August to 19 August 2022 (3 weeks) in an executive part-time format**

>> *more information on page 3*

85<sup>th</sup> UNEP/UNESCO/BMUV International Short Course on

**Sustainable Cities (SC85)**

Application period: **08 March to 13 April 2022**

Course period: **29 August to 30 September 2022 (5 weeks)**

>> *more information on page 6*

86<sup>th</sup> UNEP/UNESCO/BMUV International Short Course on

**Sustainability for food systems and forest products: the role of consumption and production (SC86)**

Application period: **23 March to 03 May 2022**

Course period: **24 October to 25 November 2022 (5 weeks)**

>> *more information on page 10*

46<sup>th</sup> UNEP/UNESCO/BMUV International Postgraduate Course on

**Environmental Management for Developing Countries (EM46)**

Application period: **05 April to 17 May 2022**

Course period: **12 January to 14 July 2023 (6 months)**

>> *more information on page 14*





The Centre for International Postgraduate Studies of Environmental Management (CIPSEM) offers a range of integrated and multi-disciplinary training programs in line with the Sustainable Development Goals and the Paris Agreement, covering key aspects of sustainability and environmental management.

CIPSEM has designed these programs to contribute to individual and institutional capacity building in developing countries. The goals are improved professionals' skillsets for their environment-related planning, coordination and management tasks within ministries, agencies and local government units, NGOs, and applied research institutions of their home countries. The systemic, interdisciplinary approach adopted by CIPSEM adequately considers the complexity of managing environmental resources in a multifaceted way, while focusing on local strategies and appropriate measures to protect the environment in a manner that is ecologically, socio-economically and culturally sound. Cross-disciplinary elements such as good scientific work, science-policy interfaces and joint social activities link the modular system and create the essential key competencies for modern, sustainable management of the rural and urban environment in consideration of a global perspective.

For this purpose, 21 to 22 established or prospective experts and leaders from different countries are invited to attend each course. All courses target professionals from government agencies, science, economy or civil society who already bear responsibility for sustainable development in developing countries, including emerging economies. Our participants usually have several years of relevant professional experience and apply for the training with their local institutions' support. The course language is English.

The postgraduate courses are organised in partnership with UNEP and UNESCO to support the 2030 Agenda with funding and support from the German Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection (BMUV) and the German Environment Agency (UBA). Through this postgraduate program, both facilitators and participants can improve their cross-cultural skills, work in a global context and learn how to work collaboratively with others from various backgrounds. Thus, CIPSEM offers an excellent opportunity for colleagues working at the national, regional, or local levels to expand networks, learn from each other and become more effective and well recognized leaders.

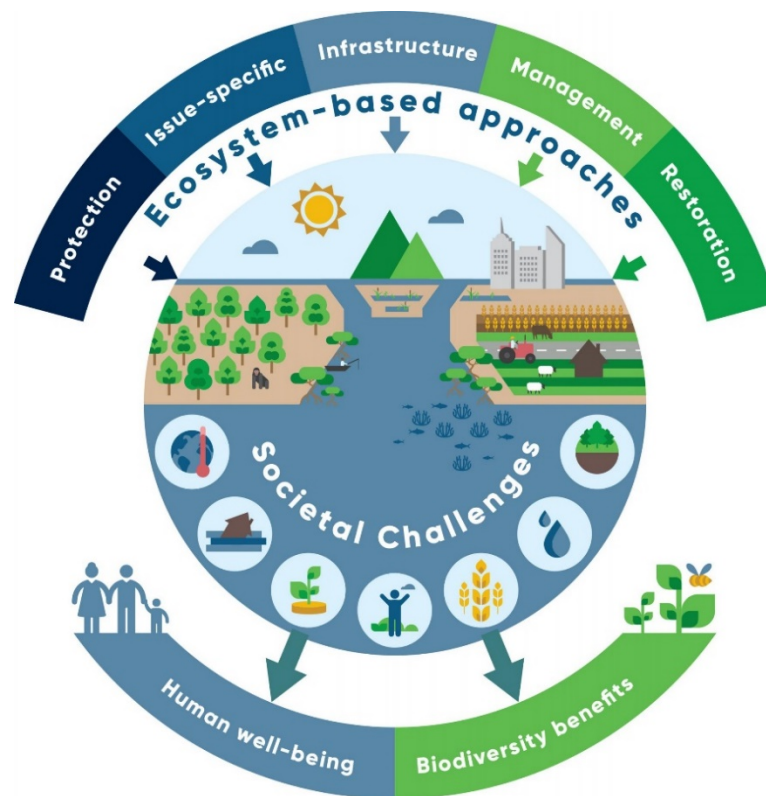


## Urban Nature-Based Solutions (SC84) >> 01.08. - 19.08.2022 (online)

*Interactive online part-time course with intense personal guidance and support for building lasting networks in a peer-group of international professionals*

### Motivation

Sustainable urban development is decisive for sustainable global development. As cities grow and change, so do the demands on social infrastructure, economic systems and natural resources. It is essential that we fundamentally reorient the patterns of daily life, our built environment and the natural systems in and around cities worldwide towards sufficiency (reducing absolute levels of consumption), resource- and material efficiency and circularity. The success and pace of urban transformation will determine whether we meet the goals set out in the global 2030 Agenda for Sustainable Development.



Source: IUCN, 2020

Nature must be at the heart of our cities: the places we work, play and engage. The UNEA-5 'Resolution on Nature-based Solutions for Supporting Sustainable Development' defines Nature-based Solutions (NbS) as "actions to protect, conserve, restore, sustainably use and manage natural or modified terrestrial, freshwater, coastal and marine ecosystems, which address social, economic and environmental challenges effectively and adaptively, while simultaneously providing

human well-being, ecosystem services and resilience and biodiversity benefits.” Particularly, urban nature-based solutions address multiple challenges, including climate change and loss of biodiversity, disaster risk, water and food security, human health and socio-economic development. The impacts of climate change pose unique risks to densely populated urban areas. As the share of the global population living in urban areas continues to rise, the role of nature-based solutions as part of climate adaptation strategies in urban settings is an urgent priority.

### Course concept and objectives

This course offers **a unique opportunity** to discuss how **nature-based solutions can help tackle many different environmental risks in urban territories** (e.g. from extreme heat to floods) while offering **additional benefits** for health, well-being and urban economies. The course will explore critical topics such as:

- The path towards resilient and sustainable cities
- Urban ecosystems and sustainability
- Planetary Boundaries
- Urban risks and impacts of global climate
- Sendai Framework for Disaster Risk Reduction and the synergies with climate action
- The concept of NbS
- Cities 2030: Implementing the New Urban Agenda
- Theory of change and systemic change
- Nature-based Solutions in Urban Planning
- Policies Frameworks for implementing NbS in urban territories
- Ecosystem-based adaptation and climate justice

After completing the course, participants will be able to:

- Explain the concept of NbS and its value for sustainable development, 2030 Agenda and its SDGs
- Identify and distinguish key elements of effective urban sustainability strategies
- Apply NbS to a real-life policy-making context
- Apply the NbS approach in the development and implementation of measures/strategies in urban areas
- Discuss the main challenges/opportunities for advancing NbS in the context of urban areas

Participants will also develop a post-training action plan (PTAP) for a challenge in their field of work, applying the course contents and considering inspiration received from facilitators and fellows during the course. This plan shall be implemented autonomously upon return and facilitate the transfer of the newly acquired knowledge into the day-to-day activities.

### Target groups

This course is aimed at experts and executives who prepare and implement political decisions and practical measures towards the goals of sustainable cities.

A first university degree (e.g. BA, BSc) in a related field is essential. Adequate communication skills in the English language and the nomination by the delegating institution are mandatory. CIPSEM Alumni are welcome and encouraged to apply for this short course.

## What makes participating in this online course transformative?

- Experience of the CIPSEM team in conducting engaging, meaningful online trainings considering the challenges in developing countries and emerging economies
- A part-time, 3-week learning experience combining live video-conference sessions, self-study units and exchange on our online learning platform
- Renowned international and German facilitators
- Financial support towards good internet access and living costs (200 €)
- Participants become part of a large international network of environmental experts and leaders (more than 2 500 alumni from 145 countries)
- Transfer of the gained knowledge and skills through mentored development of post-training action plans
- Alumni of this course can apply for one of several innovation fellowships supporting the implementation of the post-training action plan with 2000 €

## Application and participation

Qualified professionals are welcome to apply for this training from **8 March until 13 April 2022** on CIPSEM's online application portal. The Steering Committee selects 22 participants of this course by July 2022. Only selected participants will be informed via email. Successful participants are awarded a **Certificate of Proficiency in Urban Nature-based Solutions**.

For more information, please visit <https://tu-dresden.de/cipsem/unep-unesco-bmuv/bevorstehende-kurse/sc84>

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## **Sustainable Cities (SC85) >> 29.08.2022-30.09.2022 (online)**

*Interactive online full-time course with intense personal guidance and support for building lasting networks in a peer-group of international professionals*

### **Motivation**

The future of our planet and its people rests significantly on cities. Today, 55% of the global population lives in urban areas, and this share is projected to rise to 68% by 2050. Cities are at the heart of the climate agenda as they are generating 70% of global greenhouse gases. Due to their high concentration of people, infrastructures, housing and economic activities, cities are particularly vulnerable to climate change and natural disasters. Therefore, building urban resilience is crucial to avoid human, social and economic losses while improving the sustainability of urbanization processes to protect the environment and mitigate disaster risk and climate change.



**Make cities and human settlements inclusive, safe, resilient and sustainable**

Source: Velatia Networks, 2022

The ecological footprint of cities as an indicator of sustainability continues to grow and demands urgent rethinking of current urban development practices. This decade, we must transform how cities operate to drive global efforts on sustainable development, climate action, and recovery from COVID-19.

### **Course concept and objectives**

This course offers a **unique opportunity** to explore how cities can be planned and managed, in order to fulfil their role as **drivers of sustainable development**, and how they can shape the **implementation** of the Sustainable Development Goals and the Paris Agreement on climate change.



During the course, we will jointly explore the following key topics:

- **Transformative urban governance** – How can cities be governed to harness their transformative potential to drive sustainable development? The New Urban Agenda provides a blueprint on how all people, groups, and communities can be engaged. Also, the need for rural communities to approach development from a wider perspective has created more focus on a broad range of development goals rather than merely creating incentive for agricultural or resource based businesses. For this reason, there are a large variety of rural development approaches used globally.
- **Localizing the SDGs** as the process of taking into account subnational contexts in the achievement of the 2030 Agenda, from the setting of goals and targets, to determining the means of implementation and using indicators to measure and monitor progress. Localization relates both to how the SDGs can provide a framework for local development policy and to how local and regional governments can support the achievement of the SDGs through action from the bottom.
- **Holistic approaches to decarbonizing cities** - how could a cross-boundary, multi-stakeholder approach to decarbonization accelerate cities' journey towards net zero carbon emissions while also creating a more liveable city that improves the lives of the people in their communities.
- **Nature-based solutions (NbS)** as defined in the UNEA-5 "Resolution on Nature-based Solutions for supporting sustainable development" are increasingly deployed as cost-effective approaches to address the multiple challenges urban areas are facing and to accelerate sustainable urban development. They constitute 'smart' green infrastructure solutions aimed for example at increasing the resilience of a city with regard to disaster risk reduction and climate change adaptation. As opposed to single-purpose grey infrastructure options, NbS are multi-functional and offer numerous co-benefits in terms of public health, social cohesion, biodiversity, climate change mitigation, etc. creating win-win solutions for society, the environment, and the economy. In the course, we will be exploring the Global Standard for Nature-based Solutions, and how can it be operationalised. We will be looking at the governance implications from local to global, and best practice examples.
- **Sustainable mobility planning** – in this part, we will follow the 'Avoid Shift Improve' approach, which is recommended by the high-ranking UN advisory group on sustainable transport as a useful framework for assessing traffic measures and for measures to support sustainable passenger and freight transport. Applying these principles will promote a combination of multimodal, collective and shared mobility solutions and sustainable transport systems. The concept of enabling is an important addition to the framework.

As a cross-cutting aspect we will be looking into the **interaction between all stakeholders in local processes & public participation in urban environmental governance** (social sustainability). **Strategies for technical infrastructure development** for energy, drinking water, wastewater and solid waste in line with the SDGs and the Paris Climate agreement will also be addressed.

Participants will develop a **post-training action plan** (PTAP) for a challenge in their field of work, applying the course contents and considering inspiration received from facilitators and fellows during the course. This plan shall be implemented autonomously upon return and facilitate the transfer of the newly acquired knowledge into the day-to-day activities.

## Objectives

After completing the course, participants will be able to:

- Identify and explain the importance of urban sustainability strategies towards the 2030 Agenda and its SDGs
- Distinguish and use key elements of effective policy planning to promote sustainable urban development
- Embrace a more holistic, programmatic approach to decarbonization of urban areas and identify synergies between different projects, assets, and stakeholders, to create opportunities for collectively reducing emissions on a neighbourhood, district, or city scale.
- Assess the main challenges/opportunities for advancing NbS in urban territories and apply the NbS approach in the development and implementation of measures/strategies in urban areas
- Pursue an integrated, holistic approach to political and investment decisions towards sustainable mobility planning
- Apply gained knowledge on environmental communication and mediation skills
- Develop long-term visions for sustainable urban infrastructure systems, informed by the SDGs, and derive adaptable plans towards these visions

## Target group

This course is aimed at **experts who prepare and implement political decisions and practical measures** towards the goals of sustainable cities in ministries, authorities, local government and non-governmental institutions of developing countries (including emerging economies).

We expect a high motivation to explore concepts for urban sustainability and to work towards implementing them. A first university degree (e.g. BA, BSc) in a related field is essential. Adequate communication skills in the English language and the nomination by the delegating institution for this full-time course are mandatory.

## What makes participating in this online course transformative?

- Experience of the CIPSEM team in conducting engaging, meaningful online trainings considering the challenges in developing countries and emerging economies
- A full-time, 5-week learning experience combining live videoconference sessions and group work with guided self-study units and exchange on our online learning platform
- Renowned international and German facilitators
- Financial support towards good internet access and living costs (640 €)
- Participants become part of a large international network of environmental experts and leaders (more than 2 500 alumni from 145 countries)
- Transfer of the gained knowledge and skills through mentored development of post-training action plans
- Alumni of this course can apply for one of several innovation fellowships supporting the implementation of the post-training action plan with 2000 €



## Application & participation

Qualified professionals are welcome to **apply for this training from 8 March until 13 April 2022** on CIPSEM's online application portal. The Steering Committee selects 22 participants of this course by July 2022. Only selected participants will be informed via email. Successful participants are awarded a **Certificate of Proficiency in Sustainable Cities**.

For more information, please visit <https://tu-dresden.de/cipsem/unesp-unesco-bmuv/bevorstehende-kurse/sc85>

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## **Sustainability for food systems and forest products: the role of consumption and production (SC86) >> 24.10. - 25.11.2022 (online)**

*Interactive online full-time course with intense personal guidance and support for building lasting networks in a peer-group of international professionals*

### **Motivation**

Sustainable consumption and production (SCP) aims at "doing more and better with less"- increasing net welfare gains from economic activities by reducing resource use, degradation, and pollution while improving the quality of life. SCP is essential to achieving a sustainable land use transition in line with the SDGs, the goals of the Paris Agreement and the Convention on Biological Diversity, as it promotes resource and energy efficiency, sustainable infrastructure, and access to essential services. Its implementation helps achieve overall development plans, reduce future economic, environmental and social costs, strengthen economic competitiveness and reduce poverty as dimensions of resilient and inclusive growth. SCP is essential to halting and reversing the loss of forests and biodiversity, and land degradation.



Figure 1: Sustainable Development Goal 12, titled "responsible consumption and production",

Consumption and production of food and forest products and related services highly depend on the use of natural resources, affecting biodiversity and ecosystems services. The production and extraction of agricultural goods and forest products alter landscapes and natural systems across the planet and support as well as impact the livelihoods of billions of people. Therefore, efforts under SDG 12 have a central role to play in developing strategies that acknowledge the complexity and interconnectedness of resource availability and demand in order to effectively target the fundamental drivers of change.

About 60% of the world's forests – approximately 2.4 billion hectares – are primarily or partially used for the production of wood and non-wood forest products. A growing population and dietary changes are increasing demand for land to cultivate crops and graze animals. This increases the pressure on forest resources, while the rate of net forest loss is already unsustainably high.

The food system is a major contributor to climate change and biodiversity loss, responsible for around 30% of global GHG emissions. Agriculture uses one-third of the land surface, thereof globally about two thirds for the production of animal food and is thereby a major driver of deforestation. Moreover, according to FAO's 2019 report on "The state of food and agriculture", 14% of the world's food is lost after harvesting and before reaching the retail level, including through on-farm activities, storage and transportation. Reducing food loss and waste is an important way to improve food security and nutrition, promote environmental sustainability and lower production costs. The importance of the agriculture sector, mainly the animal production and the forest sector for climate change mitigation lies not only in the potential to reduce emissions but also in its potential contribution to removing carbon dioxide from the atmosphere.

Beyond their impact on the climate system, food and forest products are consumption clusters where consumers can substantially influence the total environmental burden associated with their consumption choice. SCP requires a systemic approach and cooperation among actors operating in food systems and in forest value chains, from producer to final consumer. Culture, the economic system, institutions, business models and infrastructures are also crucial to enable less consuming lifestyles, to increase eco-efficiency and to create a more sustainable and inclusive path to economic development, prosperity, and well-being.

### **Course concept and objectives**

Aligned with the "Value-Chain-Approach", the first part of the course will deal with **sustainable consumption and production patterns along the entire value chain of forest and agricultural products and commodities**, increasing eco-efficiency and ultimately decoupling economic growth from environmental degradation. This approach is a systemic analysis of drivers and barriers to sustainability along the different stages of the value chain, which identifies key points of intervention for common agenda for action.

Successful long term solutions are impossible without tackling the more deeply underlying causes. For example, technological solutions can reduce some of the pressures on biodiversity by restoring natural conditions to a smaller or larger extent (food, using energy and natural resources). However, the root causes will only generate further pressures if the sectoral fragmentation of institutions and unsustainable production and consumption patterns continue to prevail. The same appears, if policymaking, cultural and knowledge values do not lead to a paradigm shift

in society as driver of necessary changes. In that sense, concepts and approaches such as **life cycle thinking, transition theory, design for sustainability** and **transformative governance** will be discussed during the course.

In the second part of the course, **strategies for implementing sustainable agriculture/agro-forestry systems, nature-based solutions, and land management** will be addressed. Policy-relevant questions will be explored, such as: (i) What do sustainable food systems look like from a natural resource perspective? (ii) How can eco-efficiency improvements be made to enhance food security? (iii) How to steer transition towards sustainable food systems? In summary, focus will be given to efforts to promote responsible production and consumption of forest and agriculture products and their contributions to the circular economy, including through the adoption of policy and technological innovations for increased tenure security, legality, enhanced efficiency in production, improved market access and inclusion of smallholders and forest communities in sustainable value chains.

Ultimately, to foster a change towards sustainable consumption and production, **the cooperation of key actors** will be essential. Although people's and business awareness of the value of biodiversity is rising, they are still not aware of the interconnectedness of production and consumption as the causes contributing to the loss of biodiversity and ecosystem services worldwide. Therefore, **strategies and best practice examples of communication on sustainable production and consumption in food systems and along forest value chains** will be discussed.

Participants will also develop a **post-training action plan** (PTAP) for a challenge in their field of work, applying the course contents and considering inspiration received from facilitators and fellows during the course. This plan shall be implemented autonomously upon return and facilitate the transfer of the newly acquired knowledge into the day-to-day activities.

After completing the course, participants will be able to:

- Define the concept of SCP and explain its value for sustainable development, the 2030 Agenda and its SDGs
- Distinguish key elements of effective national policy planning and governance to promote SCP strategies
- Identify enabling conditions for mainstreaming and implementing SCP policies and programs, including sectoral policies and multi-stakeholder initiatives
- Discuss principal challenges and opportunities for advancing SCP strategies (e.g. demand-supply and sustainable behaviors and lifestyles) in the context of sustainable food systems and forest value chains.

### **Target groups**

This course is aimed at experts who prepare and implement political decisions and practical measures in ministries, authorities, local government and non-governmental institutions of developing countries (including emerging economies) working on resource sustainability, sustainable societal development as well as green and low carbon economy.

A first university degree (e.g. BA, BSc) in a related field is essential. Adequate communication skills in the English language and the nomination by the delegating institution are mandatory.

### What makes participating in this online course transformative?

- Experience of the CIPSEM team in conducting engaging, meaningful online trainings considering the challenges in developing countries and emerging economies
- A full-time, 5-week learning experience combining live video-conference sessions, self-study units and exchange on our online learning platform
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### Application and participation

Qualified professionals are welcome to apply for this training from 23 March until 03 May 2022 on CIPSEM's online application portal. The Steering Committee selects 22 participants of this course by July 2022. Only selected participants will be informed via email. Successful participants are awarded a **Certificate of Proficiency in Sustainability for food systems and forest products: the role of consumption and production.**

For more information, please visit <https://tu-dresden.de/cipsem/unep-unesco-bmuv/bevorstehende-kurse/sc86>

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46th UNEP/UNESCO/BMUV International Postgraduate Course on Environmental Management for Developing Countries (EM46) >> 12.01.2023 – 14.07.2023 (on site in Dresden)

Motivation

The Sustainable Development Goals (SDGs) were a remarkable advancement when adopted by the United Nations in 2015. For the first time, the world committed towards a broad spectrum of common goals ranging from climate action to sustainable economic growth, from life below water to sustainable cities, ending hunger and poverty to responsible consumption and production, and reduced inequalities to inclusive industrialisation. The 2030 Agenda is a clear recognition that our biosphere's preservation depends on the sustainable stewardship of planet Earth.

Course concept and objectives

Worldwide, implementation of both the Sustainable Development Goals (SDGs) and the Paris Climate Agreement is lagging far behind the ambitious targets. In support of both agreements, the UNEP/UNESCO/BMUV 6-month course follows an integrated and interdisciplinary approach in line with the SDGs and the Paris Agreement, covering key aspects of sustainability and environmental management.

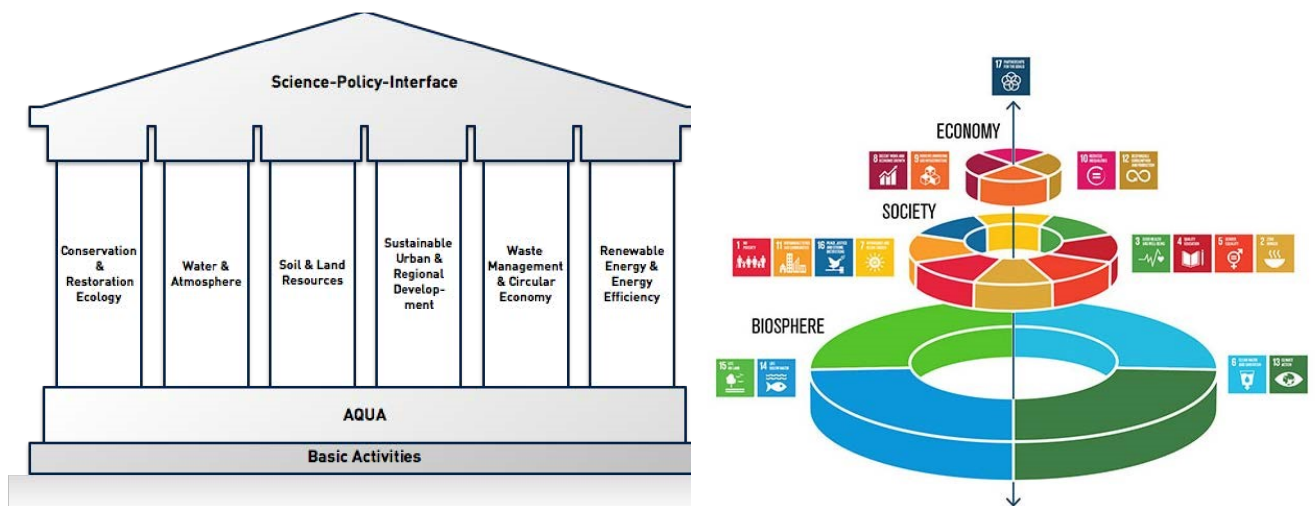


Fig. 1 (a) Modular structure of the course contents of the 46th UNEP/UNESCO/BMUV International Postgraduate Course on Environmental Management for Developing Countries (EM46)

(AQUA = Advanced QUALifications - skills of fundamental importance)

(b) Biosphere foundation for global sustainability (Source: Rockström and Sukhdev 2016, Azote Images for Stockholm Resilience Centre)

The curriculum is organized in several modules comprising conservation and restoration ecology, water and atmosphere, soil and land resources, sustainable urban and regional development, waste management and circular economy, renewable energy and energy efficiency. An overarching science-policy interface frames all disciplines.

Moreover, all participants will train fundamental skills with cross-sectoral relevance such as policy advice, presentation skills, project planning and management, which can be applied in the context of their local realities as well as communication across disciplines and cultures, participatory government practices, and understanding of geo-information.

CIPSEM follows an integrative and interdisciplinary teaching approach which conveys not only knowledge on global environmental processes and methods for the sustainable management of resources, but also promotes abilities in a holistic way of thinking with respect to environmental thematic problems and in finding corresponding solutions. The overall approach is to blend academic knowledge with local, traditional and professional expertise.

The lectures are given by professors of Technische Universität Dresden and experts from various national and international institutions, including also the collaboration with CIPSEM alumni. Participants are required to carry out a research project with a scientific scope on a specific environment-related subject and present the results of this work in a symposium at the end of the course.

After attending the course, participants will be able to develop multi- and inter-disciplinary measures and strategies for sustainable development and implement them appropriately for environmental protection and management that considers ecological, socio-economic, political and cultural aspects.

### **Target groups**

This course is particularly designed for experts and leaders of public governance and administration at the national, regional and local level requiring an overall-competence in environmental matters. However, professionals from science, economy or civil society who already bear responsibility for sustainable development in their countries are welcome to apply as well. To be eligible, candidates need to originate from and work in developing countries, including emerging economies. Applicants also need to have several years of professional practice in the course's scope for a mutually beneficial exchange of experiences. A first university degree (e.g. BA, BSc,), adequate communication skills in the English language, and the delegating institution's nomination are mandatory.



Fig. 2: Impressions from past trainings on environmental management

### Application and participation

Qualified professionals are welcome to apply for this training from **05 April until 17 May 2022** on CIPSEM's online application portal. The Steering Committee selects 21 participants of this course by July 2022. Only selected participants will be informed via email.

Participants stay in our comfortable single studio apartments and receive a stipend to cover basic living expenses (550 €/month). In addition, flights, health insurance, public transport tickets, costs of over-night stays for excursions etc., will be covered. The course office will provide additional manifold assistance.

Participants successfully completing this course will be awarded a **Postgraduate Diploma in Environmental Management**.

For more information, please visit <https://tu-dresden.de/cipsem/unep-unesco-bmuv/bevorstehende-kurse/em46>

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