

# ESD IMPLEMENTATION IN LEARNING CITIES



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### FOREWORD

In 2019, the UNESCO Global Network of Learning Cities (GNLC) set up a thematic cluster on Education for Sustainable Development (ESD) to enable member cities to share information on ESD strategies implemented at the city level. The ESD cluster facilitates the exchange of knowledge, resources and good practices; fosters mutual support among participating cities; and builds a shared vision of sustainable development. Cluster members are united in their belief that, by making ESD a key component of their lifelong learning approaches, their cities will be equipped to tackle the challenges they face with regard to sustainable development. At both the policy and the practice levels, cities have implemented various initiatives focusing on ESD and lifelong learning for all. Despite their contextual differences, member cities are eager to share their experiences and good examples of ESD, thus generating ideas on how to shape a more inclusive and sustainable community, and how to continue working towards a successful implementation of ESD.

COVID-19 has profoundly affected our daily lives, work environments, social customs, and ways of thinking and acting. At the same time, it has had a tremendous impact on education at all levels. It is thus imperative to define what sustainability means for us all, and what possibilities – both social and political – we have at our disposal when we engage with the world around us. The year 2020 could mark the beginning of a major transformation. We cannot continue as we did before. ESD must focus on the changes needed in order to guarantee sustainable development, and it must provide educational interventions accordingly. The year 2020 marks the launch of UNESCO's global framework, Education for Sustainable Development: Towards achieving the SDGs (ESD for 2030). Cities and local communities are deemed a priority area because, in the context of sustainable development, meaningful transformation and related activities are likely to occur in the community. The roadmap laid down in ESD for 2030 recommends a number of related activities. including 1) the development of an action plan to determine how the community as a whole can become both a learning laboratory for sustainable development and an important element of ESD for 2030 country initiatives; 2) the provision of capacity development for local decision-makers and opinion leaders, as well as for the wider public; 3) the coordination of formal and nonformal education providers' programmes so that together they address all of the SDGs and related local sustainability challenges in a coherent way; 4) an appeal to national policy-makers to support efforts by local communities, coordinate them as a part of a national action plan on ESD for 2030, and treat them as national contributions towards the achievement of the SDGs; and 5) campaigns to encourage people in the local community to engage actively in public decision-making processes and take action as responsible citizens. These recommendations assist in directing cities' activities, and consequently serve as important guidelines for the member cities of the UNESCO GNLC ESD cluster. At the same time, it should be noted that many member cities have already made significant progress in the areas of activity laid down in these recommendations.

To highlight outstanding and innovative local initiatives, the UNESCO GNLC team that coordinates the ESD cluster announced the publication of *ESD Implementation in Learning Cities* and issued an open call to all member cities of UNESCO GNLC asking them to submit best practice cases on ESD implementation (policy and practice) following a lifelong learning approach.

The editing committee<sup>1</sup> has reviewed all submissions and selected case studies from nine cities to be included in the publication: Bogotá (Columbia), Bonn (Germany), Chefchaouen (Morocco), Dublin (Ireland), Espoo (Finland), Hamburg (Germany), Okayama (Japan), Shanghai (People's Republic of China) and Wyndham (Australia). These cases showcase innovative local initiatives that have embedded ESD into lifelong learning systems through policy/ strategy development or project implementation, focusing on the following priority areas of action and local activities laid down in the ESD for 2030 roadmap:

#### 1) Local policy/strategy development on ESD:

The development of an action plan that determines how the community as a whole can become a learning laboratory for sustainable development.

2) Capacity-building for educators and local authorities: Lifelong learning initiatives for systematic and comprehensive ESD capacity development for educators in the formal and non-formal education sectors, and for local government officials.

## 3) Efforts to foster engagement with local communities, including:

- formal education institutions' engagement with local communities for the promotion of ESD;
- non-formal education institutions (e.g. community learning centres) serving as a hub for lifelong learning on ESD in their communities.

#### 4) Empowerment and mobilization of youth:

Lifelong learning initiatives for ESD that focus on young people.

#### 5) Innovative use of local spaces for ESD:

Designated areas or spaces that inspire learning and host projects that promote sustainability.

In addition to the five priority areas listed above, the case studies share one cross-cutting theme:

• Multi-stakeholder approach: How people from different walks of life or professional sectors come together to contribute to local ESD initiatives at either the policy or the project level.

In addition to the cases studies (Chapter 2), the publication includes a chapter (Chapter 1) that

1 The editing committee consists of the UIL coordination team, the three cities charged with coordinating the ESD cluster (Espoo, Finland; Hamburg, Germany; and Shanghai, People's Republic of China) and the cluster's technical partner, the ESD section at UNESCO Headquarters.

outlines why learning cities can act as effective vehicles for implementing ESD, and a chapter (Chapter 3) that summarizes cross-cutting themes and provides learning cities with suggestions on how to sustain local ESD initiatives following a lifelong learning approach. The UNESCO GNLC coordination team hopes that this publication will reveal member cities' efforts to implement successful ESD projects, and shed new light on locally-oriented lifelong learning approaches for ESD.

Producing a publication that includes case studies from cities across various regions is a demanding process. I would like to thank all of the member cities that submitted case studies for providing the content that made this publication possible. Special thanks are due to Ms Inka Bormann (Professor, Free University of Berlin, Germany), who drew on her rich knowledge in the field to provide key insights for the present publication. I also extend our special thanks to Mr Bernard Combes, Programme Specialist, ESD section, UNESCO, for his valuable contributions to the publication, as well as the experts from the three coordinating cities of the ESD cluster; Mr Jürgen Forkel-Schubert (Former Head of Department ESD in the Ministry for Environment, Climate, Energy and Agriculture, Free and Hanseatic City of Hamburg, Germany), who has facilitated and remained highly involved

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On behalf of the UNESCO GNLC coordination team

Chapter 1: Implementing ESD in learning cities

## **IMPLEMENTING ESD IN LEARNING CITIES**

#### What is sustainable development?

Sustainable development is one of several globally recognized, targeted approaches to making meaningful changes to society. To achieve this, however, requires transforming the way each citizen thinks and acts. This in turn enables a transition to more responsible lifestyles, consumption and production patterns. However, because education is intrinsically linked to well-balanced development, only education and learning at all levels and in all social contexts can bring about multifaceted, critical changes of this kind. Hence, development must take into consideration the individual, social, cultural, environmental and economic dimensions of improved quality of life for present and future generations.

Sustainable development is both an ethical challenge and a scientific concept. Rather than being conceptualized as a fixed goal, sustainable development is an ever-changing concept and horizon, a mechanism for balancing different values, priorities and opinions. To achieve this balance, education for sustainable development (ESD) works to achieve specific aims. First, it must strive to develop a broad awareness of the concept of ESD. Second, it must ensure that its objectives are clearly defined with regard to prioritising why we learn, how, when and where we learn, and who learns. Third, it must enable learners to understand the importance of integrating knowledge, skills and values from a variety of disciplines into their daily lives, while appreciating the nature of interdisciplinarity. Fourth, it must pave the way for students to develop the

skills necessary for understanding and participating, globally and locally, in a wide range of issues related to sustainable development. When all of these conditions have been met, a fifth and final objective is possible: instilling in learners the ability and will to integrate sustainable living practices, for themselves and others, into their daily lives.

Education is thus at the heart of sustainable development, and of the comprehensive yet specific Sustainable Development Goals (SDGs). Education, in this respect, is both a goal and a means of attaining all of the 17 SDGs. Its conceptual basis, socio-economic implications, and environmental and cultural connections make it an enterprise that touches on every aspect of life. Not only does it acknowledge that, in today's interconnected world, we need quality education and new skills for our younger generations, it also underscores the role of lifelong learning in creating opportunities for all. Sustainable development, in essence, requires far-reaching changes, particularly in the way that education is practised today, and its successful implementation requires global responsibility.

# What is education for sustainable development?

Education for sustainable development (ESD) is a comprehensive framework for quality education and learning within which key issues, such as poverty reduction, sustainable livelihoods, climate change, biodiversity loss, gender equality, corporate social responsibility, and the protection of indigenous cultures, are addressed. ESD requires everyone to take on challenges central to sustainability by understanding what these challenges are, and by learning how to address them. Since ESD addresses the local contexts of the three spheres of sustainability – environment, society (including culture) and the economy – it should take diverse and culturally appropriate forms around the world. As a consequence, there can be no universal model of ESD.

Strategically, ESD has been identified as a fundamental element of the 2030 Agenda for Sustainable Development. It is included in the SDG goal on education (SDG 4) as part of Target 4.7, and can be considered a key enabler for achieving all other SDGs. This means that ESD has the potential to empower everyone to make informed decisions that foster environmental integrity, economic viability and a just society for present and future generations. Its intention is thus to provide the knowledge, skills, attitudes and values necessary to achieve progress with regard to the different sustainability challenges laid out in the SDGs. ESD also helps us understand the complex interdependencies between the different SDGs.

#### UNESCO and the ESD agenda

UNESCO is the lead agency for ESD and coordinates the implementation of the 2020-2030 framework, 'Education for Sustainable Development: Towards achieving the SDGs (ESD for 2030)'. This framework focuses on five priority action areas: policy, education and training, educators, youth, and communities. In 2019, the UN General Assembly endorsed the new global framework on ESD for 2030 in UN Resolution 74/233.

To help visualize the path ahead, the 2030 framework defines three key features of ESD. First, it emphasizes the role of education in achieving the 17 SDGs. In Resolution 72/222 (2017), the UN General Assembly recognized that ESD is 'an integral element of the Sustainable Development Goal on quality education, and a key enabler of all the other Sustainable Development Goals'. In other words, while all ESD work mobilizes action towards achieving the SDGs, it simultaneously raises awareness of and action on all 17 goals in education settings. ESD also promotes a critical and contextual understanding of the SDGs, which invites learners to see the links and tensions between the goals in their respective local, national and regional contexts.

In light of this, ESD must, in the coming 10 years, focus on the large-scale transformations needed to ensure sustainable development, and on the ways in which education can provide the basis for relevant interventions. ESD can employ learning content, pedagogy and a learning environment that promotes transformative actions among individual learners. This is an invaluable asset, as individual actions go hand-in-hand with structural changes that aim to transform the deep-seated causes of the myriad crises we face today. ESD thus provides holistic support for the achievement of a more sustainable future by incorporating the values, knowledge, competencies and approaches of individuals and communities, the beneficiaries of sustainable development.

Furthermore, the urgency of current crises calls for stronger leadership at the country level. To this end, the ESD for 2030 roadmap focuses on countrydriven initiatives through which countries can address the framework's five priority action areas, engage all concerned stakeholders, and advocate for and mobilize resources. ESD is the best way to promote action at the local, national, regional and global levels, and by interweaving action at all of these levels, it encourages new forms of global citizenship and greater harmony with the planet.

## Why are local actions so important for achieving the SDGs?

The 2030 Agenda for Sustainable Development is both universal and indivisible. It addresses all countries of the world, encouraging them to align their development efforts with their aims to promote prosperity while simultaneously protecting the planet, thereby achieving sustainable development. This in turn calls for education to explicitly address how everyone can contribute to peace and sustainable development. To make tangible changes possible, however, localities must bring different sectors and stakeholders together to create possibilities for engaging in the pursuit of sustainable development.

Local communities, both urban and rural, are critical drivers for sustainable development, and their efforts merit greater support. Communities, for example, are the site of a continuous exchange of knowledge and information through which people's thinking and understanding are transformed. Consequently, ensuring that ESD is implemented efficiently at the local level means mobilising local authorities and communities, ensuring that they have sufficient ESD capacities, and promoting collaboration between local authorities, communities and other relevant local stakeholders. Once these criteria have been achieved, ESD can empower local populations and workforces with the skills they need to build a more sustainable future – a future that accounts for entrepreneurship, innovation, cooperation, creative thinking and participation in decisionmaking processes.

To move forward, each of us must see ourselves as agents of change. Each of us can work individually to build a better world, and each of us is responsible and accountable. Furthermore, achieving the SDGs requires collaborative efforts among individuals, families, communities and governments. Both individual and collaborative actions are key to addressing and implementing the SDGs through ESD at the local, national, regional and international levels. Through them, we learn to live together today and help preserve the integrity of tomorrow.

Learning to live together sustainably in communities is one of the major educational challenges of our time. For this reason, lifelong education and learning are essential components of community life that can help us establish harmonious societies that are socially just, ecologically sustainable, economically productive, politically participatory and culturally vibrant.

## Why is a lifelong learning approach so effective when implementing ESD?

Lifelong learning integrates learning into everyday life. It incorporates people of all ages, in all contexts, through a range of modalities, in all learning spheres and spaces, and for a variety of purposes. Lifelong learning is an important concept at all levels of education policy. It thus lays the foundation for sustainable development by harnessing all of the societal tools and stakeholders at its disposal in order to pave the way for sustainable education practices.

Both lifelong learning and sustainable development favour continuous transformation, and can thus work hand-in-hand to achieve the SDGs. Both emphasizes the need for short- and longterm changes, local and global participation, and commitment from all societal actors.

When lifelong learning is prioritized, all people are provided with access to learning opportunities throughout their lives. This ensures that all members of society are prepared to think about and address pressing social, economic, political and personal issues. In practice, this means that lifelong learning empowers all members of society, particularly disadvantaged groups. Lifelong learning is thus a prerequisite for sustainable development, as it sets an example for how communal participation gives us the ability to achieve shared goals.

When lifelong learning directs policy and implementation, it captures the essence of working with and serving all members of society, and herein lie the similarities between the lifelong learning approach and ESD. ESD also incorporates all members of society and aims to use education to harness all possible means to create lasting, positive change. Lifelong learning and ESD are intrinsically aligned, as demonstrated by comparable levels of multi-stakeholder involvement, cross-sectoral investment of resources, and outcomes. By extension, a lifelong learning approach will inherently lead to ESD.

# What is a learning city and how can learning cities implement ESD?

Learning cities are cities and communities that align their policies and strategies with the goals of lifelong learning. They strive to effectively mobilize local resources in every sector in order to promote inclusive learning, from basic to higher education; revitalize learning in families and communities; facilitate learning for and within the workplace; extend the use of modern learning technologies; enhance the quality of and maintain excellence in learning; and foster a culture of learning throughout life. These cities are expected to enhance individual empowerment, build social cohesion, nurture active citizenship, promote economic and cultural prosperity, and lay the foundation for sustainable development.

In addition, learning cities promote learning in all settings and spaces. Hence, they are working to create a microcosm of sustainable educational practices for other communities, cities and regions to follow. Learning cities' culture of learning and education, responsibility and participatory citizenship, and collaboration with stakeholders, is automatically a catalyst for normalising ESD through an inherently sustainable approach to educational practices. By following a participatory approach in which all citizens are involved, learning cities can work with local inhabitants to construct a culture of sustainable development that will benefit all stakeholders in the short and long term.

Learning cities that prioritize ESD also integrate lifelong learning policies and practices. These include, for example, developing ESD-oriented local policies and strategies; implementing lifelong learning initiatives for systematic and comprehensive ESD capacity development; mobilising formal and informal education institutions to engage in local communities for ESD; making innovative use of local spaces for ESD; promoting lifelong learning initiatives on ESD that address different population groups; and fostering collaboration among multiple stakeholders in a range of sectors. In this way, learning cities have become fertile ground for the growth of ESD.

Chapter 2: City case studies

## LOCAL POLICY/STRATEGY DEVELOPMENT ON ESD

Development of an action plan that determines how the community as a whole can become a learning space for sustainable development.

#### Hamburg, Germany

#### Profile

**Total population:** 

• 1,899,149

Average number of years of school attendance

(data disaggregated by sex)\*:

- Women: 12
- Men: 12

Unemployment rate (%) (data disaggregated by sex)\*:

- Women: 3.6% (37,643)
- Men: 4.0% (44,635)
- Overall: 7.6% (June 2021)

#### Main industries\*:

 Seaport (container/cargo and shipyard), aerospace/aviation, chemicals and metals, media, copper smelting

\*most recent available data

#### Hamburg's ESD strategy: ESD Master Plan 2030

#### Main focus of the policy/strategy

Since Hamburg's adoption of the 17 Sustainable Development Goals (SDGs) in 2017, the initiative 'Hamburg is Learning Sustainability' has become an important part of the city's sustainability strategy. The initiative developed the Hamburg 'ESD Master Plan 2030' that represents an overarching Education for Sustainable Development (ESD) approach in which all areas of education areas have defined actions for the period 2021-2030. The main tasks involve the structural implementation of ESD into all areas of education. This covers the full spectrum of education - from early childhood, high school, and vocational training to non-formal education – with a special focus on the seven districts of Hamburg. Lifelong learning for a sustainable future will also be part of daily life for all citizens. All this is possible because Hamburg is both a city and a German state with legislative responsibility for education.

# Development and implementation of the policy/strategy

#### **Developing the policy/strategy**

From 2017–2020, a steering group of the stakeholder network, 'Hamburg is Learning Sustainability', developed a local ESD master plan, which has been dubbed the 'Hamburg Master Plan ESD 2030'. The 'Hamburg is Learning Sustainability' initiative was established in 2005 with key stakeholders from a variety of educational contexts in Hamburg, including non-profit organizations (NGOs) and/or other organizations working in non-formal and informal education; five ministries related to education sectors; universities; and representatives of churches and businesses. Partnership with and membership of the Hamburg initiative is voluntary and free of charge.

## Involvement of stakeholders and mobilizing resources

To implement ESD in all areas of education, a number of factors must align. These include, among others, changing official rules for early childhood education; changing school laws; normalizing and regularizing meetings between all actors working on the same issue; and establishing contests and awards. First, however, the proposed master plan had to be officially approved by the Hamburg Senate (state government). This finally happened on 15 June 2021.

Prior to its approval, the ESD Master Plan had been put through a multi-step development process, which included developing an ESD implementation strategy; defining, creating and establishing a working group/steering committee; and allocating funding from the city's administration to finance activities and the convened committee. Additionally, a database of good ESD practices (comprising different projects and measures in all areas of education since 2005) was presented to the public in print and online. Specific ESD issues and the strategy were then discussed in public meetings between administration members, ESD specialists and other interested parties. Fortunately, the initiative developed a shared definition of ESD early on to outline all skills and competencies needed, which helped with



ITU World Triathlon Hamburg; © Witters GmbH Sportfotografie

strategizing as to how to implement sustainability through education at the local level.

#### Communication

After the Senate confirmed the ESD Master Plan for Hamburg at the political level, the state press office published a corresponding press release and made the document publicly available for download on the internet (https://www. hamburg.de/pressearchiv-fhh/15185326/2021-06-15-bukea-masterplan-bildung-fuernachhaltige-entwicklung2030/). Furthermore, all administrations in Hamburg and the individual districts were provided with information on the new ESD Master Plan. At the same time, approximately 800 ESD actors were informed of the plan via the newsletter of the 'Hamburg Learns Sustainability" initiative. The City of Hamburg will initially provide 1.1 million euros in funding for the master plan until the end of 2022. The next steps will be to implement and regularly evaluate the measures specified in the master plan; forge closer links between the ESD strategy and the city's sustainability strategy; and finalize project funding by the end of the ESD period (2030).

# Monitoring the impact and implementation of the strategy

The process for implementing ESD and becoming a learning city laid down in the master plan will be accompanied by an evaluation by experts from Hamburg-based universities. The aim is to develop a future-oriented education concept that gradually improves ESD quality and can convince the public of the value of ESD. Additionally,



Hamburg Cruise Days 2017, Blue Port; © Thomas Panzau

Hamburg and three other states in Germany are developing a certification scheme for teaching and learning in the non-formal education sector. Hamburg was able to draw on its experience to develop an 'ESD Quick Check Tool' for members of the UNESCO Global Network of Learning Cities (GNLC) that helps to generate a personal snapshot of the implementation situation of ESD in municipalities in general.

Generally, the city's approach has worked in its favour. From the beginning, Hamburg has communicated all results from its 'Hamburg is Learning Sustainability' network through publications, the internet and numerous meetings and conferences with national and international representatives. Hamburg has on multiple occasions been designated a 'German ESD city' by the German Commission for UNESCO, and is a key partner in UNESCO's Global Action Programme (GAP) on ESD. Hamburg also won the 2019 'Japanese UNESCO ESD Award'.

#### Challenges and lessons learned

Despite many successes, Hamburg has had to address certain challenges while creating and implementing its 2030 vision. First, the city has overcome divergent strategies by defining a shared standard for ESD, thus refining discussions and strategy aims. Hamburg has also had to take steps to motivate actors from various educational sectors to participate in the process, and – the biggest challenge of all – to secure funding from the city to realize the strategy's aims. To address these challenges, the 2030 team found it beneficial to garner political support from major players, including the mayor and the local parliament.

The most important lesson that Hamburg has learned is to share its experiences with other cities. Since 2009, Hamburg has co-chaired the national group of designated ESD municipalities, and has been inspired by networking initiatives and the sharing of good practice. Hamburg is proud to be a member of the GNLC since 2019, coordinating the ESD cluster together with Espoo, Finland, and Shanghai, China. In spite of their differences, cities must enhance their cooperation in ESD because, at the local level, implementing ESD and fostering sustainability go hand-in-hand.

#### Shanghai, People's Republic of China

#### Profile

Total population: • 24,870,895 (May 2021) Average number of years of school attendance\*: • 11.81 Unemployment rate (%)\*: • 4.3% Main industries\*:

 Advanced manufacturing, international finance, modern services

\*most recent available data

#### Shanghai Community Action Plan on ESD

#### Main focus of the policy/strategy

Implementing education for sustainable development (ESD) at the community level is a necessary and important task for the overall development of Shanghai – not only because sustainable development is regarded as basic national policy in China, but also because it is integral to Shanghai's 2017–2035 Urban Development Plan, which states Shanghai's goal of becoming a city characterized by humanity, ecology and creativity.

The comprehensive Shanghai Community Action Plan on ESD focuses on four priority action areas: community health, the local environment, community-building, and vocational competences. Its aim is to improve citizens' awareness, knowledge and skills with regard to sustainable development, and to enhance the role and power of community education in addressing urban sustainable development problems. At the same time, Shanghai is looking forward to cooperating with other member cities and sharing valuable ESD experiences. Based on Shanghai's current community education initiatives and on experiences from other cities, Shanghai is adopting two major approaches to implement ESD. One approach is to optimize existing community education practice. The other is to develop new ESD projects from the perspective of sustainable development.

# Development and implementation of the policy/strategy

#### **Developing the policy/strategy**

The development of the Action Plan is the responsibility of the Shanghai Municipal Education Commission's Division of Lifelong Education. The plan was formulated and released to the public following extensive investigation and desk research, and several rounds of discussions. Representatives from community colleges or schools, relevant municipal departments and researchers from the East China Normal University were invited to provide updated information on sustainable development in Shanghai, and to discuss ways to address related issues through education.

## Involvement of stakeholders and mobilizing resources

To promote ESD more effectively at the community level, numerous stakeholders must coordinate and work together. As the lead unit, the Shanghai Municipal Education Commission's Division of Lifelong Education oversees the development, funding and coordination of the Action Plan. District-level community colleges and subsidiary community schools encourage their educators to take part in the project. These educators develop and implement local ESD projects and conduct action research with the support of researchers from Shanghai's Municipal Institute of Lifelong Education (SMILE), the East China Normal University and the Shanghai Academy of Educational Sciences, among others.

In addition to these principal stakeholders, the Shanghai Municipal Health Commission focuses on citizens' health literacy and organizes a range of related activities, such as distributing health awareness booklets and convening health-related self-management groups. In line with this, the Shanghai Cultural and Broadcasting Bureau and the Spiritual Civilization Office provide many resources to support the development of community ESD.

At the district and sub-district levels, community educators are integrating resources from multiple sectors, such as civil affairs, water management, culture and agriculture, to develop ESD projects. These projects have gained notable cross-departmental support. All of these units and departments form a relatively extensive ESD network. The network is being widened gradually and on a rolling basis according to the requirements of individual ESD projects. The network has furthermore initiated a series of seminars to maintain and promote daily communication and information exchange.

#### Communication

The Shanghai ESD network has various ways to communicate with its main stakeholders and the general public. District community colleges and local community schools release information on ESD events and news through the network's official WeChat account, posters, videos and telephone services to ensure that more residents are aware of and can take part in related curricula and/or public activities. The Shanghai Municipal Education Commission has incorporated the Action Plan into training content for teachers, aiming to get more community educators to understand ESD, and to encourage them to explore local ESD practices together.

Further, the Municipal Education Commission organizes academic conferences and publishes annual reports on lifelong education to showcase good ESD practice and recommend these to the public. SMILE has set up an official WeChat account and webpage to release progress reports and provide information on key events. In addition, several WeChat work groups have been established to facilitate the exchange of case studies on ESD. Moreover, core team members of the Shanghai ESD network visit most community colleges or schools in Shanghai to discuss the meaning of ESD and local related practices with community educators. Representatives of the city of Shanghai also attend international exchange meetings hosted by the UNESCO Institute for Lifelong Learning (UIL) to share its ESD experiences.

## Monitoring the impact and implementation of the strategy

Implementing ESD at the community level requires proper evaluation, which can help the Municipal Education Commission and stakeholders monitor progress and measure real outcomes. Researchers thus strive to help community educators collect more qualitative data to test the results of local ESD projects, for example by interviewing community residents. Additionally, Shanghai pays particular attention to the experiences of people who have



Cityscape of Shanghai, © anekoho/123RF.COM

made significant changes in their lives and work through learning about ESD. By synthesizing various data sets, Shanghai can to some degree assess how each project operates. Shanghai has also learned of other cities' experiences by way of Hamburg's 'ESD Quick Check Tool'. As a result, Shanghai will develop its own ESD monitoring tools, which will help the city pay closer attention to innovation with regard to content, organization and collaboration on ESD.

Today, nearly two years after the plan was launched, more and more local community educators have the opportunity to learn about the ideals of sustainable development and the importance of ESD. They are keen to further improve their own education practice in collaboration with the ESD network. Since the plan's inception, a number of districts have integrated ESD into their district-level Lifelong Education Development Programme. ESD projects on Shanghai's urban gardens as learning spaces for ESD have also been recognized by other member cities.

#### Challenges and lessons learned

Three main challenges were noted during the process of promoting the Action Plan in Shanghai. First, community educators are often unfamiliar with the key terminology on ESD. As a result, they require special training or seminars to enhance their knowledge of ESD. Second, the content of local ESD projects tends to be relatively narrow. While community education in Shanghai features curricula focusing on residents' health, the local

environment, lifelong learning for older people, and vocational skills, community ESD activities on the sea, carbon, food and the circular economy are rarely mentioned. Shanghai thus needs to further understand the 17 SDGs and gradually expand its ESD content in order to provide more rewarding ESD learning opportunities for the general public. Finally, it is crucial that Shanghai link resources and support from a range of fields and experts to develop more innovative local ESD projects. For example, community schools' implementation of the ESD river-cleaning project could benefit from greater professional support, particularly in terms of environmental expertise. One school wants to invite doctors specializing in traditional Chinese medicine to share their knowledge of herbal remedies with local residents once an ESD project on urban gardening has been initiated.

One important lesson that Shanghai has learned is to cooperate and communicate

actively with other stakeholders in or beyond the city. Shanghai has already established close relationships with a number of partners, and communicates with them on a daily basis. International meetings, for example, have provided Shanghai with opportunities to learn about wide-ranging ESD experiences from other cities. Following its participation in these meetings, and with the help of district community colleges, the city has collated and refined data on nearly 20 typical local ESD cases, while also recruiting new team members. The city has also learned that is it vital to gain sufficient administrative support and maintain close contact with local education authorities. ESD is now a key activity in Shanghai's annual lifelong education work plan, which in turn can serve to encourage more community educators and citizens in Shanghai to pay closer attention to and participate in community ESD.



Online meeting on ESD held in Shanghai; © Shanghai Municipal Institute for Lifelong Education (SMILE) and Shanghai Municipal Education Commission

## **CAPACITY-BUILDING FOR EDUCATORS AND LOCAL AUTHORITIES**

Lifelong learning initiatives that encourage systematic and comprehensive ESD capacity development for educators in the formal and non-formal education sectors, and for local government officials

#### **Bonn, Germany**

Profile Total population: • 320,000 Average number of years of school attendance\*: • 11-12 Unemployment rate (%)\*: • 7.8% Main industries\*: • Information technologies, logistics, science

\*most recent available data

#### Educators' digital learning for Sustainable Development in response to COVID-19

#### Overview and objectives

Today, the former German capital, Bonn, is a place of international encounter. Politics, science and international affairs are, by and large, key topics in adult education. Hence, for more than a decade, sustainability and the 17 SDGs have been high on the agenda for lifelong learning. However, the COVID-19 pandemic has had strong negative effects, especially on the non-formal sector. As a result, the public Adult Education Centre (AEC), run by the city as part of its public programmes of lifelong learning and further training, has had to implement innovative digital strategies to further sustain the education sector.

In order to continue regular teaching and provide the public with ongoing lifelong learning courses, the AEC has had to improve its understanding of digitization as a tool and learning objective. It has had to rise to the challenge of enabling educators to overcome technological and methodological hurdles to implement digitization in the course of the academic year. The AEC has consequently established a 'Digital Academy' and made changes to the communication and educational methods used among local educators and between educators and students. To empower people to work within this new digital world, the AEC has harnessed its Digital Academy to provide innovative digital tools and networking opportunities across sectors and citywide. Moreover, through these efforts, the AEC has attracted numerous new educators from associations and other educational institutions, while also gaining new clients, including employees of the respective administrations.

#### Implementation

#### Setting up the project/initiative

The AEC has been conducting training on topics related to sustainable development and life-long learning for many years. However, due to

the COVID-19 lockdowns, many events could no longer be held face-to-face. In response, more than 800 course instructors were trained in the use of digital tools. Additionally, a Digital Academy launched in 2019 implemented platforms such as BigBlueButton and Webex to move teaching and training online for the more than 1000 courses on offer, including those pertaining specifically to the Millennium and Sustainable Development Goals (MDGs and SDGs). It has thus been possible to continue providing courses on sustainability issues - which have attracted a large number of students from public bodies, administrative entities, nongovernmental institutions and ESD initiatives in recent years - via a digital format. AEC's new digital services include a series on Biodiversity in the City, which will continue into 2021, and Energy for Bonn.



Adult education centre programme; © Municipal government of Bonn

#### Involvement of actors and deployment of resources

The strategy has involved several hundred educators, who participated in online tool training activities following the onset of the COVID-19 pandemic. However, the AEC also works with sustainability experts from all fields, among them business specialists; ESD project leaders; employees of the city administration and public transportation service; members of the local university; federal authorities located in Bonn (including the Federal Office for Information Security); and the city's Lord Mayor. Moreover, as part of the process to digitize the centre, the AEC offers support and facilities, including WiFi, smart boards and streaming capacities. Before the pandemic, this digital streaming infrastructure was rarely used; today, however, the AEC's work is becoming increasingly more digital. Going forward, the Digital Academy will be continued exclusively online. All events related to ESD and the SDGs will be offered mainly in a hybrid version, using inclusive streaming options. Participation in the Digital Academy's training courses is free of charge to educators and SDG experts. Moreover, lecturers' fees are covered by the adult education (VHS) budget.

#### Communication

AEC carries out its communication and advertising activities on its dedicated website, www.vhs-bonn.de. In addition, the centre provides flyers, a municipal intranet, mail distribution lists, municipal advertising and social media channels, newspaper notices, printed programme booklets, and access to the AEC cooperation network, which comprises over 150 partners.

#### Outcomes, challenges and lessons learned

Evaluations of the Digital Academy are carried out using a range of methods, including quantitative measures, such as statistics that are processed for government funding bodies, and feedback in print and electronic form. Initial results show that more people have participated in the online training courses (both in the Digital Academy and in the toolboxes for educators) than in face-toface courses offered on-site.

Further, digital technologies have enabled more than 800 educators to be trained over a one-year

period during the pandemic. This is a very high number compared to previous years. The pandemic has demonstrated that the AEC must become more resilient and provide both analogue and digital teaching methodologies (insofar as this is possible for learning subjects). Since the onset of COVID-19, courses have been designed to accommodate this aim. The Digital Academy's experience has furthermore shown that there is a need to intensify the exchange of information on socially relevant digital topics. To achieve this, stakeholders in the city administration must make their agenda more transparent to the public via educational institutions



Bundesstadt Bonn, Bonner Innenstadt Skyline; © Giacomo Zucca

such as the AEC and, above all, to the city's numerous younger and older ESD activists. Only then can more open-mindedness and, ultimately, more commitment from citizens to urban sustainability goals be achieved.

The AEC has identified several factors that are important for the implementation of a digital initiative. First, a professionally managed digital infrastructure must be in place, along with appropriate materials to support course leaders (see www.vhs-bonn.de/info-und-service/info-zu-onlinekursen-fuer-kursleitende.html, in German only). Second, a well-organized network of partners working in city administration is required. Third, as the experience of the Digital Academy has shown, internal and external communication are subject to different challenges and must be approached accordingly. Finally, it is crucial to have in place a clear and reliable network of ESD and sustainability stakeholders from numerous associations and public authorities. Moreover, these stakeholders must be willing to participate in the Digital Academy, otherwise the very different technical standards and practices employed by each will remain a challenge.

Looking forward, the AEC plans to integrate educationally disadvantaged and poorly educated target groups into its programmes. This endeavour will be complemented by a systematic and target group-specific elaboration of the 'inclusive opportunities' offered by digitization.



Bundesstadt Bonn, Beethoven Denkmal; © Municipal government of Bonn

# FORMAL EDUCATION INSTITUTIONS' ENGAGEMENT WITH LOCAL COMMUNITIES FOR THE PROMOTION OF ESD

#### **Dublin, Ireland**

#### Profile

Total population: • 1,242,000 Average number of years of school attendance\*: • Women: 12.9

• Men: 12.4

Unemployment rate (%) (data disaggregated by sex)\*:

- Women: 24.1%
- Men: 25.9%

#### Main industries\*:

 Agriculture, pharmaceutical and medical technologies, software and ICT

\*most recent available data

#### Collaborations between formal education institutions and local communities for ESD in Dublin

#### Overview and objectives

Through the establishment of the Creative Arts Spring School (CASS), Dublin intends to raise residents' awareness of local higher education opportunities in the creative arts. This is in line with prioritizing Education for sustainable development (ESD). CASS was developed in alignment with the fifth goal of the Irish National Plan for Equity of Access to Higher Education 2015–2019, which aims to develop regional and community partnerships and strategies for increasing equitable access to higher education.

#### Implementation

#### Setting up the project/initiative

To achieve the goals of the Irish National Plan, each of the representatives of the Dublin/Leinster Pillar region of Ireland established productive community engagement initiatives. These aimed to build on an existing higher education institution (HEI) infrastructure to attract an additional 2,000 underrepresented students over a three-year period.

Key to this proposal were four work packages that leveraged specific experiences across individual HEIs to strengthen the quality and impact of outreach strategies. The four work packages that comprise the proposal are: CASS (led by the National College of Art and Design - NCAD); cross-institutional open learning, led by University College Dublin (UCD); an inter-institutional/cross-community approach to mentoring, led by Trinity College Dublin (TCD); and intergenerational community engagement that follows a learning city approach, led jointly by the Institute of Art, Design and Technology (IADT) and the Marino Institute of Education (MIE).

CASS offers successful programme applicants an opportunity to spend time in each of the participating HEIs by attending a series of creative arts workshops. Funding for CASS was finalized in October 2017. Since June 2018, 60 places have been made available annually to selected participants from under-represented groups, including mature learners; people with disabilities (PWDs) or significant ongoing illnesses; single parents; Irish Travellers; students taking Level 5 QQI-FET/ Fetac qualifications (further education training); members of an ethnic minority; refugees (asylum seekers); and students who have successfully completed an access programme.

## Involvement of actors and deployment of resources

CASS has a representative from each participating HEI on its steering committee, thus equalizing each institution's contributions to the implementation of the programme. This organization of the overall programme works well due to the positive collaboration between staff, supporting tutors, and students across the HEIs that lead work packages. In addition, CASS working groups include a member of staff from each participating HEI and are chaired by the access officer at the NCAD. Per current management, working group meetings focus on establishing agreements on branding, dates, schedules and timetables, workshop programming, and the dissemination of promotional materials. The promotional campaign is then shared among the five HEIs, each having its own outreach programmes, partner organizations and schools from which they draw participants.

To facilitate smooth operations, resources are split into categories: human, material, infrastructural, and financial. Human resources are



Learner promoting Dublin Learning City Initiative; © National College of Art and Design

the key driver for coordinating and developing the project nationally. To achieve the project outcomes, a significant amount of time and dedication is required from tutors, administrators, HEI coordinators, transport providers, hospitality staff, students and parents. Material resources account for all artistic materials that should be available to participants, while infrastructural resources prioritize transportation, food and accommodation for participants. Lastly, financial resources guarantee access and opportunities, as the programme is offered free of charge. Funding is provided by the Higher Education Authority (HEA) through the Path 3: Bridges to Higher Education fund.

#### Communication

Promotion of CASS is shared amongst five HEIs, with each having their own outreach strategies, partner organisations and schools to draw from. Furthermore, the initiative is being communicated through community networks and open days hosted by HEIs, using traditional and social media outlets. Each year, prior to the CASS open week, communication materials such as posters and flyers are disseminated to all HEIs. A common online application form has also been developed and processed through the NCAD to increase the programme's accessibility for all. CASS is further advertised and promoted through the UNESCO Dublin Learning City website.

#### Outcomes, challenges and lessons learned

Unfortunately, due to COVID-19, CASS 2020 was cancelled. However, two CASS courses took place in March/April and June 2021. Both were delivered online and met the target of 60 participants from under-represented groups. The summer school events were particularly successful due to a partnership brokered with the MTU Crawford College of Art in Cork, thus offering a national version of the project. Feedback from all CASS schools has been resoundingly positive, and six CASS students have recently been awarded Portfolio Preparation Scholarships to sit the NCAD Summer Portfolio Course in August 2021.

CASS uses three primary measures to evaluate the project's successes. To analyse the quality of associated engagement and outreach practices, CASS measures the level of engagement with their target under-represented groups in application and teaching processes. This helps to adapt and improve future strategies. Evaluation and feedback surveys are also issued to participants to gauge their satisfaction with the programme. Both of these criteria are connected to the final indicator of success: the progression of participants to higher education after participating in CASS. In 2019, seven CASS participants progressed to higher education, stating that CASS gave them the confidence to do so.

Looking ahead, it is possible and necessary to review a number of challenges and lessons learned. Challenges thus far have included the



Creative Arts Summer School Poster; © National College of Art and Design



Creative Arts Summer School workshop; © National College of Art and Design

centralized application system, which anonymizes applicants' data, addressing physical accessibility issues on campuses, and adjusting to management changes at partnered HEIs. Fortunately, however, the CASS working group was extremely helpful in advising on certain pitfalls identified during the 2018 programme. This helped with subsequent troubleshooting issues.

Moving forward, CASS is working to adapt its practices to better suit CASS participants. This includes reviewing application processes (by offering applicants an opportunity to explain their future career plans and any barriers to education they may have previously faced) and enforcing a more intentional awareness and critique of the types of participant information that is disseminated to HEIs. Additionally, CASS is working to adjust programmes to suit the needs and availability of students by offering transparency in the process of setting each day's agenda.

## NON-FORMAL AND INFORMAL EDUCATION INSTITUTIONS SERVING AS A HUB FOR LIFELONG LEARNING ON ESD IN THEIR COMMUNITIES

#### Chefchaouen, Kingdom of Morocco

#### Profile

Total population: • 50,000 Average number of years of school attendance\*:

- Women: 12
- Men: 12

**Unemployment rate (%)** (data disaggregated by sex)\*:

- Women: 12.5%
- Men: 23.6%
- Main industries\*:
- Arts and crafts, tourism, food industry

\*most recent available data

#### Energy Info Centre (EIC) as a major lever for energy transition among the citizens of Chefchaouen

#### Overview and objectives

The city of Chefchaouen, Morocco, has used nonformal education to change collective norms and standards with regard to its citizens' energy consumption. One such initiative is the Energy Info Centre (EIC), which was launched in 2016. Initially managed by two local organizations, EIC has, since 2018, been administered by the city itself, with the aim of advising citizens on energy consumption. EIC works to educate and encourage citizens, institutions and organizations to make more environmentally aware decisions in their daily lives. Its priority areas include the reduction of electricity and water consumption; the use of solar energy; the improvement of air guality in indoor spaces; the mitigation of and adaptation to climate change; the safe use of gas equipment; and more efficient management of household and business waste. A number of related citywide projects are working towards making Chefchaouen the Ecological City it was declared to be in 2010.

Chefchaouen's EIC educates citizens in French and Arabic about how to transition to sustainable energy practices. It is expected that, by 2030, citizens, organizations and communal agents in Chefchaouen (and, by extension, other territories in the region) will be able to make informed choices with regard to energy consumption and environmental impact. Through the informal education offered by EIC, the city hopes that individuals will be empowered to make informed decisions and thus contribute to collective efforts to implement energy transition and climate preservation measures. Additionally, the city anticipates that its more educated populace will be increasingly willing to embrace the transition to more environmentally friendly energy production and consumption practices.

#### Implementation

#### Setting up the project/initiative

EIC has its roots in a local Sustainable Urban Demonstration Project (SUDEP) that led to the establishment of the 'Chefchaouen Commune Model and Initiator of Citizen Change in Terms of Sustainable Energy Management'. Initially known as the Energy Info Point (EIP), EIC emerged in 2016 as a more effective means of reaching the community. More active and better resourced than its predecessor, EIC is home to a series of thematic spaces designed to exemplify good practices. The most exciting of these is the test kitchen, which houses energy efficient and non-energy efficient appliances for visitors to compare. These include a refrigerator, oven, gas cooker and washing machine, all solar powered.



Pilot of the project, which is part of a communal vision to promote the social and solidarity-based economy as well as the green economy in strategic sectors, and to enhance the employability of young people. © La commune de Chefchaouen

## Involvement of actors and deployment of resources

By February 2018, EIC had already been integrated into the municipality's Environment and Energy Department. While finalizing leadership of this department's newest arm, EIC's mission was revised to better articulate the goals of the initiative. A local non-profit organization, GERES, and experts in sustainable energy consumption from the Moroccan Agency for Energy Efficiency and its French counterpart, ADEME, all contributed towards establishing the necessary training resources and implementing EIC's goals as it transitioned to management under the municipality.

Several actors were involved in realizing this initiative. GERES supported the project with funding from the European Union and other partners (e.g. the Nexans Group, the Provence-Alpes-Côte d'Azur economic development agency, and the French Development Agency). Local associations were also involved in the tendering process for management of the centre, and recruited two coordinating advisers. Meanwhile, a steering committee brought together several other stakeholders, including the National Office for Electricity and Water; the Participatory Council for Energy, Energy Efficiency and the Climate; the regional Tourism Council; elected officials from the municipality; and the local youth council. Thanks to the human, financial and educational resources that each of these stakeholders contributed, the centre was able to deliver on its aims.

Currently, EIC offers free educational advice to Chefchaouen residents who visit the centre, and loans out educational resources (including books, games and magazines) and measuring equipment (including watt meters, thermometers, temperature probes and thermal cameras) to those who need them. Additionally, the centre is equipped



© La commune de Chefchaouen

with educational tools that encourage local inhabitants to visit the centre.

The municipality has continued the work of EIC as it aligns with the city's aim to be a more sustainable city by 2030. In this context, a municipal director has been appointed to the civil service in order to oversee the management and implementation of EIC's action plan. Additionally, a dedicated Energy Office has been created within the municipality's Environment and Energy Efficiency Service. This office ensures EIC's sustainability by providing support with regard to funding, subsidies and partnership-building.

#### Communication

EIC depends on social media to communicate with the city's populace. Through Twitter and Facebook,

EIC shares information about upcoming events and, more importantly, provides citizens with online advice, including videos, awareness campaigns and links to useful websites. For ease of access, some of these educational services are also offered through more traditional media platforms, like television and radio. However, EIC's most effective means of education continues to be spontaneous visits by curious citizens and professionals who drop by the centre to access its knowledge base and tools, and to speak to its on-site experts.

#### Outcomes, challenges and lessons learned

The centre has embraced visits from city residents and professionals, all of whom have walked away with a better understanding of energy consumption and sustainability. Through its initiatives, EIC



© La commune de Chefchaouen

collects data on energy consumption in the city and uses this to better orient actions and policies for controlled energy consumption. Chefchaouen has also seen a reduction in some households' energy bills as a result of targeted awarenessraising campaigns and subsequent changes in energy usage.

Nonetheless, EIC still faces challenges. The sustainability of EIC and SUDEP projects has yet to be determined, and it is consequently unclear whether their impact will survive current economic pressures. In response, concrete fundraising activities and a formalized budget are needed. This is an opportunity for EIC to generate ideas, put these ideas into practice, and change the city for the better. The current situation also requires the management team to work collaboratively with all stakeholders to ensure that benefits are felt not only within EIC's walls, but also throughout the broader community. EIC's success to date can be attributed to the tremendous support it has received from the municipality and citizens of Chefchaouen.

The city's Vision Chefchaouen 2030 states the municipality's aim to localize and implement the Sustainable Development Goals by prioritizing sustainable energy use, e-mobility and waste management. With this in mind, the city is setting an example by transitioning to more sustainable energy consumption infrastructures and practices. Additionally, the city has set up a consultative council comprising a range of stakeholders who can garner the support of residents and businesses alike and thus foster more sustainable energy consumption habits.

Looking forward, EIC hopes to expand into neighbouring regions and increase its expertise. It is hoped that EIC will broaden its focus to include other environmental issues through education programmes focusing on the impact of energy, ecology and climate changes on individuals and groups. The aim going forward is thus for EIC to continue exemplifying how informal education can be used to change citizens' environmental perceptions and practices on both a small and a large scale.

#### Okayama, Japan

#### Profile

Total population: • 720,000 Average number of years of school attendance\*: • Women: 13.1

• Men: 12.6

Unemployment rate (%) (data disaggregated by sex)\*:

- Women: 2.3%
- Men: 3.2%

Main industries\*:

 Wholesale/retail, medical/social welfare, hospitality

\*most recent available data

# Okayama's Kominkans: Educating for a sustainable future through community learning centres

#### Overview and objectives

In Okayama, local developmental priorities are brought to the fore through Kominkans or Community Learning Centres. The centres incorporate the perspective of Education for sustainable development (ESD) and promote projects in seven areas of particular importance to the city: safe and secure community development; environmental awareness and activities; good health; gender equality; child-rearing and youth development; and opportunities for older people to make friends and learn. The Kominkans' policy is thus to promote educational and community development activities in Okayama, in collaboration with citizens and other stakeholders in the city who have developed sustainable working relations.

Since Okayama comprises urban, residential and rural areas with different populations and industries, each district has its own unique needs and problems. Simply setting up a conventional learning centre where people can rent a room for their activities is not enough. Consequently, the city has allocated specialized staff to every Kominkan, and has trained them as ESD coordinators, thereby playing an active role in meeting the needs of the community and helping residents create a sustainable society.

#### Implementation

#### Setting up the project/initiative

Okayama incorporated the promotion of ESD into its basic Kominkan policy in 2007, and thus started to include ESD in Kominkan activities. By 2018, the city had established Kominkans in all 37 junior high school districts to act as bases for ESD activities.

To aid in the seamless integration of the Kominkan-based activities of the Okayama ESD project, the respective policies of the Kominkans and the city are closely aligned, i.e. the Kominkans' policy is developed in accordance with Okayama's strategic policy and its comprehensive and basic plans for the promotion of education.

## Involvement of actors and deployment of resources

Although each Kominkan has an ESD coordinator, there are limits to what one person alone can

achieve. To ensure the success of the Kominkans' activities, it is essential that residents are actively involved. Stakeholders who contribute towards implementing Kominkan-based activities for ESD include, among others, nationhood associations, social education organizations, companies, nonprofit organizations (NPOs), schools and individual citizens. At Kominkans, a board of educational staff and directors supports community learning activities during the day and in the evenings. Meanwhile, the city supports and manages Kominkans by facilitating communication with related organizations and departments, and by providing funds for the operation of the community learning centres.

The Tomiyama Kominkan serves as a successful example of stakeholder involvement. Here, members of neighbourhood associations, women's associations and clubs for older people created a new support system to support one another in overcoming challenges. The system assists those in need of help with day-to-day activities, e.g. by accompanying someone to the hospital or grocery store. To receive help, citizens simply need to contact the coordinator, who will find a helper in the local neighbourhood. Such a support system can be established and operated in other Kominkans. Determining how get residents involved is key to the betterment of the community as a whole.

#### Communication

Kominkan staff routinely communicate with local leaders to create community learning programmes. Although each Kominkan has its own way of disseminating information to the public (such as



Local residents engaging in waterfront environmental research o rganized by Kyoyama Kominkan; © Okayama ESD Promotion Commission

a newsletter, bulletin board or Facebook page), Okayama uses its public relations newsletter and website to further promote the Kominkans' programmes and activities. Local newspapers also actively report on the Kominkans' unique programmes and efforts to achieve the SDGs.

#### Outcomes, challenges and lessons learned

Kominkans serve as learning centres for residents and visitors to the city of Okayama, offering a broad range of educational courses, and even encouraging the community to initiate localized learning programmes. Residents thus play a major role in planning and implementing projects, incorporating the issues that are important to them. This collaborative effort has led Kominkans to schedule lectures and workshops based around ESD and civic collaboration to solve regional issues, deepen learning, and create locally relevant projects. Furthermore, residents can borrow library books from the Kominkans, something that facilitates learning and dialogue for people of all ages.

The Kominkan prototype has been developed to adapt to the needs of Okayama's residents. There are 10-year strategies in place that are reviewed every five years. The results of these assessments are used to improve projects for the coming fiscal year. A working group constantly monitors activities to ensure that social education programmes are aligned with citizens' ongoing needs.

As the Kominkans represent a significant undertaking with several deliverables, staff from the Board of Education have been assigned to support a series of community activities. Alongside the directors of the Kominkans, the Okayama municipality plays a central role in promoting collaborations with related organizations and departments. The city is also responsible for managing funding for the Kominkans. Furthermore, and in line with the move to share responsibilities, a steering committee has been created. Groups composed of residents, users of Kominkan services and facilities, and staff members participate in the planning of projects. Citizens' participation in the planning process has led to the organization of lectures and workshops that incorporate the ESD perspective. The initiative's strength lies in its promotion of civic collaboration to solve regional issues, deepen learning and carry out activities reflecting local life.

Currently, the spread of COVID-19 has caused major challenges for the inhabitants of Okayama, and this in turn has given the city further grounds to channel resources into ESD initiatives such as the Kominkans. Although this has at times proven challenging (especially because of the wide range of stakeholders involved), Okayama is determined to use ESD and exemplary leadership to solve the problems faced by its residents.

#### **Further information**

The city has published a collection of ESD practices from Kominkans, entitled Renmenmen.



People participating in multicultural community workshop in Kominkan organized by Okayama ESD Promotion Commission; © Okayama ESD Promotion Commission

## **EMPOWERMENT AND MOBILIZATION OF YOUTH:** LIFELONG LEARNING INITIATIVES FOR ESD THAT FOCUS ON YOUNG PEOPLE

#### Wyndham, Australia

#### Profile

Total population: • 270,478 Average number of years of school attendance\*: • Women: 13 • Men: 13 Unemployment rate (%) (data disaggregated by sex)\*:

- Women: 9.7%
- Men: 7.1%

#### Main industries\*:

 Manufacturing, construction, transport/postal/warehousing

\*most recent available data

#### Empowering and mobilizing Wyndham Youth in ESD across schools and kindergartens

#### Overview and objectives

Wyndham City Council provides a suite of lifelong learning offerings to all schools and kindergartens in the city, including free excursions and programmes. Excursion sessions usually run for approximately 45 minutes and cover various topics across the environment and sustainability spectrum to educate students, teachers and families from the wider school and kindergarten community. Offerings address topics such as the natural environment, waste and sustainability.

#### Implementation

#### Setting up the project/initiative

In 2016, Wyndham City Council adopted the Environment and Sustainability Strategy, setting the course for Wyndham's environmental agenda until 2040. This strategy's ambitious goals include developing programmes in collaboration with Wyndham schools, kindergartens and their partners, such as the Ceres School of Nature and Climate.

Excursions related to the topic of the natural environment focus on native grasslands and biodiversity and include Wyndham's Habitat Heroes Programme, which facilitates the creation of gardens and the improvement of the municipality's wildlife corridors. Each year, the City Council accepts two schools to this programme and engages youth leaders as 'Habitat Heroes'. The Wyndham Trees for Schools Programme is another offering, whereby ten schools are given the opportunity to plant native trees on their grounds in order to help cool the urban environment and improve habitats for birds. Each school receives 50 native trees, as well as tree stakes and ties, and garden mulch. A further programme of note is the Wyndham Environmental Youth Summit, which celebrates World Environment Day with some 100 students from various schools who are engaged in mediated local workshops that focus on present or imminent environmental issues.

On-site or live-streamed programmes present age-appropriate videos on waste and recycling excursions, complemented by an email follow-up. Recently, Wyndham's Climate Futures Office invited students and a local artist to participate in a competition to create sculptures from waste materials. Additionally, Wyndham creates and broadcasts Waste Watchers Online, a five-week online course on waste management that explores the issue of waste, presents hands-on tips, and shares current and contextual information with target audience.

## Involvement of actors and deployment of resources

Various internal council partners are involved to support the programmes. These include a research team to provide baseline data, the Learning Community Team through its work with schools, and the Youth Services team to connect with young people. Other direct partnerships include a collaboration with the Werribee Open Range Zoo and Zoos Victoria to support their work in conservation and education.



ESD Recycling Week sculpture event; © Wyndham City Council

Indirect partnerships are in place with the State Government Department of Education and Training to boost curriculum outcomes.

Schools involved in the programmes undertake waste audits to assess a day's worth of waste. Participating schools are offered training during follow-up audits. Schools and kindergartens also receive assistance with planning waste reduction/ prevention activities. In terms of financial resources, excursions are offered free of charge to schools. This is achieved using an innovative approach: comprehensive training equips teachers to lead the excursions themselves, thereby eliminating schools' need to find replacement staff. Additionally, the organizational 'train-the-trainer' model for educators supports learning sustainability.

Wyndham's environmental support for its kindergartens and schools also expands into the deployment of materials. These include physical and visual resources, such as free hard-waste and recycling guides, and waste detective books that are available to educate students on improving waste management. The city further provides extra bags, gloves and syringe containers to schools that organize clean-up days or sites, and collects site rubbish for 'Clean Up Australia Day'. Support is extended through human, financial and infrastructure resources. It is through these continual support mechanisms that Wyndham empowers schoolchildren to learn about, and practise, more environmentally conscious lifestyles.



Youth summit; © Wyndham City Council

#### Communication

The ESD initiatives have been communicated in various ways, including personal calls and emails across the Wyndham community to schools, kindergartens and families; a strong communications and marketing strategy by the Wyndham City Council communications team that targets the entire community, e.g. by helping to advertise events through the city's webpage and social media channels; delivery of a booklet to all schools with a list of offerings; emails to school principals in the local government area of Wyndham inviting them to encourage students to become involved in youth leadership programmes; an annual report on the state of Wyndham's environment that is available to the community; and meet-ups organized through the Teachers' Environment Network, during which teachers share knowledge, experiences and skills relating to environmental education and school projects. A total of 196 teachers are included in the Teachers' Environment Network database.

#### Outcomes, challenges and lessons learned

As environment and sustainability are focus areas of the state's curriculum, schools and kindergartens look for different ways to provide education with subject specialist, and are keen to sign up for Wyndham City Council's ESD programmes. The city provided education via the school programme to 2,476 students in 2019 and 2,087 in 2020 (546 in person and 1,514 via virtual educational sessions/ videos due to COVID-19 restrictions). Schools are also encouraged to sign up for the ResourceSmart Schools programme to work towards achieving a five-star rating. This rating is calculated on the basis of a school's utility bills and waste audits. Finally, based on schools' excursions and sorting activities, the ESD committee evaluates whether children have expanded their knowledge of waste and recycling, while also surveying teachers for feedback.

Thus far, there has been positive support for, and evaluation of, many ESD projects related to the Wyndham City Council. Through the Teachers' Environment Network, teachers across Wyndham gather once a term to share knowledge, experiences and skills regarding ESD in schools. Wyndham supports these teachers by delivering an integrated and locally relevant sustainability curriculum. The Youth Ambassador Program is run in partnership with Wyndham Youth Services to inspire a new generation of environmental leaders through education and activities.

Despite the level of organization in place, the challenges presented by the COVID-19 pandemic have affected schools and excursions. Fortunately, available resources have allowed for some excursion activities to be transformed into online schooling opportunities. Time is a further challenge: schools, particularly secondary schools, are busy places and thus may find it hard to make space in the curriculum for ESD. In response to this, a suite of programmes that can easily be implemented and delivered by Wyndham's educators has been developed. Other challenges include a lack of recycling services in some schools, which can make targeted education difficult. It is also challenging to fully measure the success of engagement in set programmes in such cases.

## INNOVATIVE USE OF LOCAL SPACES FOR ESD: DESIGNATED AREAS OR SPACES THAT INSPIRE LEARNING AND HOST PROJECTS THAT PROMOTE SUSTAINABILITY

#### Bogotá, Colombia

#### Profile

Total population: • 7,743,955 Average number of years of school attendance\*: • N/A Unemployment rate (%)

(data disaggregated by sex)\*:

- Women: 20.7%
- Men: 12.1%

#### Main industries\*:

• Public administration and defence, real estate, commerce, vehicle repair

\*most recent available data

# Environmental classrooms in the moorlands of Bogotá

#### Overview and objectives

The Chingaza moorlands in Bogotá, flanked by hills to the east and home to 15 wetlands, feature a wealth of flora and fauna, making them a prime location for the implementation and support of ESD-related strategies. In recognition of their unique status and to protect their biodiversity, the Environmental Classrooms strategy has been launched. It offers streamlined education content designed to manage and improve how people interact with, make use of and understand the natural environment. The strategy is thus aimed at all areas of society, and focuses on environmental awareness. Each environmental classroom is staffed by an interdisciplinary pedagogical team that guides the teaching process.

#### Implementation

#### Setting up the project/initiative

Proposals for Environmental Classrooms were adapted to the specific characteristics of the natural areas under protection, and to the environment in which the classrooms would be located. Studies of the ecosystems that characterize the mountains of the upper Andes, the forests around Bogotá, and the snow-capped peaks of the central mountain range, have contributed significantly to raising awareness of the importance of maintaining biodiversity. This has also helped to highlight the extent to which these ecosystems have deteriorated as a result of climate change.

Currently, Bogota is developing its Environmental Classroom strategy in four locations: Soratama, the Entrenubes Mountain District Nature Reserve, the Santa María del Lago Wetland District Nature Reserve, and the Mirador de los Nevados District Nature Reserve.

## Involvement of actors and deployment of resources

The Environmental Classroom strategy is led by the State Secretary for the Environment, who also coordinates with the actors involved in promoting knowledge and changes in habits. These actors include public entities, social organizations, public and private educational institutions, companies and citizens. Further alliances have been formed with the Administrative Department of the District Civil Service, aimed at strengthening public servants' environmental competencies, and with the Secretary of Education, to promote strategies among teachers and students. The strategy is designed to support citizen initiatives, organizations and local mayoral offices. Key rollout efforts include citizen-centric awareness campaigns for the protection of flora and fauna. Such efforts require dedicated funding and resource management. Funding comes from investment projects defined by the State Secretary for the Environment within the framework of Bogotá's development plans. The current administration heads an investment project called 'Environmental Cultural Transformation from Education, Participation and Communication Strategies', which is part of Bogotá's development plan for the period 2020-2024. The project was allocated a total of US\$1,044,432 for 2021.



View of Bogotá from El Verjón village; © Fredy Gómez Suescún

#### Communication

To ensure effective outreach, information on the Environmental Classrooms is disclosed to the public through its official website, the Secretary for the Environment's social media channels, and through a range of other platforms. The agreement with the Administrative Department of the District Civil Service furthermore ensures that information about the programme is disseminated to public servants from other municipal government entities. The Secretary of Education of Bogotá, makes information publicly available to educational institutions. In the Environmental Classrooms themselves, pedagogical teams carry out local and targeted management and awareness-raising activities.

#### Outcomes, challenges and lessons learned

The Environmental Classrooms strategy seeks to strengthen social ownership of the territory, in environmental spaces and municipal sites, to improve relations between human beings and their environment. These public spaces also promote environmental research and the meaningful use of free time.

The project is monitored in compliance with the approved goal of linking people to environmental education strategies. The data collated by the project covers, for example, the entity or organization involved, the number of participants, the date of execution, and the activities, themes and age groups involved, amongst others. The Environmental Classrooms strategy is monitored



View of El Verjón village in eastern Bogotá; © Fredy Gómez Suescún



Aerial view of the Juan Amarillo wetland in the Suba district of Bogotá; © Fredy Gómez Suescún

every quarter by means of the Secretary for Planning's platform for assessing public policies. Follow-up activities are administered through the Integrated Management System and monitoring and evaluation committees.

It must be noted that face-to-face interaction has necessarily been limited by the COVID-19 pandemic. However, this setback has allowed the team behind the strategy to strengthen its presence on the virtual stage. Through the use of technology, the organizing team has been able to reach more citizens, including people with disabilities, through treks and virtual tours, thereby increasing recognition of the territory's biodiversity.

At the same time, the Environmental Classroom strategy has faced the technological challenge of establishing a virtual platform that allows for better interaction with participants, and is without time and attendee limits. One of the main issues has been to assess how citizens targeted by the strategy subsequently interact with, make use of and care for the environment. It has similarly proven challenging to integrate environmental content into formal education in schools in order to help the city's children and youth recognize and create awareness of the importance of caring for biodiversity.

Despite the need for virtual resources, the team has concluded that, if the Environmental Classroom strategy is to be implemented successfully, it must be developed in a natural space. Furthermore, it must be supported by technical teams, an educational syllabus, a work plan and a pedagogical action plan.

### **Espoo, Finland**

#### Profile

Total population: • 293,000 Average number of years of school attendance\*: • Women: 13.9 • Men: 13.8 Unemployment rate (%) (data disaggregated by sex)\*: • Women: 5.6% • Men: 6.1% Main industries\*: • Public sector and services, trade, hospitality

\*most recent available data

# Urban gardening in early childhood education

#### Overview and objectives

Urban gardening in Early Childhood Education (ECE) centres in Espoo exemplifies how humans are all part of, and dependent on, the broader ecosystem. ECE centres involved in the programme have, along with the city's Green Area Maintenance Unit, developed gardens in their urban educational spaces. Through these gardening initiatives, children and teachers develop knowledge and skills collaboratively, thus improving their environmental awareness and active citizenship. The gardening activities have been especially impactful for small children, whose relationship to nature is developing, and whose hands-on experiences in the gardens develop environmental sensitivity and life skills. Espoo's ECE urban gardening initiative makes innovative use of spaces to advance the city's ESD goals.

#### Implementation

#### Setting up the project/initiative

Espoo's 'Urban Gardening in Early Childhood Education' programme was launched in 2017 by way of a strategic pilot initiated by the city's co-designer at the Green Area Maintenance Unit. To get this ESD-oriented initiative going, interested ECE centres were mapped in a survey, and educators were offered courses and related educational materials. The Helsinki Metropolitan Area Reuse Centre supported this capacity-building exercise amongst educators, resulting in some 33 units enrolling during the first year. This momentum continued through an agreement between the city's Public Works Department and its Education and Cultural Services. This partnership facilitated the Green Area Maintenance Unit's delivery of soil and plant boxes to enrolled ECE units during routine maintenance sessions, thus avoiding additional disruptions to the ECE centres' daily routines. Once the resources had been delivered, children and adults could begin planting, caring for and harvesting vegetables; by extension, everyone began learning and growing together.

## Involvement of actors and deployment of resources

These urban gardening activities in early childhood education in Espoo are intended to increase stakeholders' understanding of the relationship between humans and nature, as well as its importance to the natural ecosystem. To carry out this

endeavour, children, in particular, are provided with information, skills and values, in addition to realworld opportunities and activities that help shape and realize healthy environmental citizenship. Aside from the children, their parents and teachers, the project's main actors include Espoo's Green Area Maintenance Unit and the Early Childhood Education and Care Unit. Additionally, the Helsinki Metropolitan Area Reuse Centre played a vital role in providing capacity-building and educational materials for educators. It provided a free web course on urban capacity-building to generate ideas and concrete tips for the ECE units. More recently, a separate course was launched, entitled 'Sustainable daily life in ECEC (early childhood education and care), which provides a more holistic perspective on how ECE centres can implement positive changes.

In tandem with the aims mentioned above, ECEC in Espoo has a strong focus on sustainability, and gardening activities are a vital part of the city's ecological sustainability efforts. Moreover, the programme itself is low-cost. In 2019, for example, the cost for one plant box was €9, while €4 could purchase a sack of soil. It is also possible to reduce expenditure; there are no extra delivery costs, since deliveries are carried out during regular maintenance-related service drives in each area. This theme of financial sustainability is further exemplified by educators who farm with participating children as part of their daily operations. This way, no extra staff members are required, thereby eliminating another set of possible costs.



Urban gardening in the residential area of Suurpelto, Espoo, Finland; © City of Espoo / Annika Forstén

#### Communication

Invitations to participate in the urban gardening initiative have been sent through the city's internal communications channels (intranet, etc.), and questionnaires have been sent out to map interest and engage new participants. Marketing measures have been carried out been at ordinary ECEC meetings for ECE leaders. The participating units have also shared the gardening journey with parents and families, and many children have been keen to share their experiences at home. The National Ministry of the Environment has supported the initiative by producing a video of the programme as part of the national Sustainable City project. The aim of the video is to inspire other Finnish cities to develop similar initiatives, and it has been distributed on several forums.

#### Outcomes, challenges and lessons learned

Feedback on the urban gardening ECE centres garnered from annual surveys has been positive. One of the most encouraging outcomes of the initiative has been the co-development of educational activities by teachers and centre staff, who do this with their children. Through this, children have learned not only about gardening, but also about insects, vegetables, teamwork, healthy meal choices and how hard work can yield good food. The benefits of this learning process will continue throughout their lives.

As a way of monitoring progress, photos and experiences linked to challenges and their respective solutions are also shared and co-developed. The first summer, when the ECE centres needed to plan for watering plants during the holidays, proved



Pupil taking picture of nature; © City of Espoo / Annika Forstén

the most challenging phase of the programme. The issue was quickly resolved, however, once the piloting units figured out that placing boxes directly on the ground in a strategically positioned area of the garden would produce optimal nursery results. The Finnish summer proved beneficial to the plants, and at some centres, parents and grandparents often helped to care for them.

In addition to these milestones, participation data has also been encouraging: the number of units enrolled increased from 55 in 2018 to 77 by the end of 2019. As a result, the pilot was further expanded early on to target select service houses for older people, alongside a number of other specialized units.

In 2020, the range of consecutive actions that comprised this three-year-long pilot led to the integration of the operational model into Espoo's regular operations in the field of early childhood education. The initiative has also been expanded to include schools and a number of care centres for older people.

## Chapter 3: Conclusion

## CONCLUSION

This publication showcases nine exemplary local initiatives that have embedded ESD into lifelong learning systems through policy/strategy development and project implementation. The selected case studies, compiled by members of the UNESCO Global Network of Learning Cities (GNLC), present the quality, breadth and depth of impact that can be accomplished through implementing ESD following a lifelong learning approach.

The two case studies on sustainable policymaking in Hamburg, Germany and Shanghai, People's Republic of China focus on the development of ESD strategies and action plans at the local level, setting up a policy framework to promote the actions of all stakeholders. Through support for ESD in educational institutions and local communities, policy-makers are creating an environment to sustain change. Synergy between the formal, non-formal, and informal sectors has proven crucial, and has required policy support, not only in the field of education, but in all areas involved in sustainable development. The 'Hamburg Master Plan ESD 2030' initiative represents an overarching approach, through which all areas of education are assigned defined actions for the period 2021–2030. The 'Shanghai Community Action Plan on ESD' addresses the role and power of community education in coping with urban sustainable development problems. Despite varied implementation strategies, both initiatives fundamentally aim to raise citizens' awareness, knowledge and competencies with regard to sustainable development, and to

provide systematic institutional support. The remaining seven practice-based case studies from across the globe exemplify the wide range of ESD activities taking place in learning cities. These case studies – from Australia, Colombia, Finland, Germany, Ireland, Japan and Morocco – offer wide-ranging insights into implementing ESD initiatives locally.

**Dublin, Ireland,** promotes collaboration between formal education institutions and local communities.

Chefchaouen, Kingdom of Morocco, and Okayama, Japan, have established local lifelong learning hubs that help educate communities about sustainable energy consumption and a sustainable future. All three initiatives focus on transforming learning communities in order to empower learners to become agents of change. Learning institutions take transformative actions to align with sustainable development principles, and to reinforce the efficacy of pedagogical and administrative change. This holistic approach towards sustainability in educational institutions enables the creation of learning environments that respond optimally to the local challenges of sustainable development.

**Bonn, Germany**, proposes digital approaches that equip non-formal educators to enhance digital learning for sustainable development in response to the COVID-19 crisis. Building educators' capacities remains key to transitioning to sustainable learning. Educators play a vital role in helping learners understand the complexity of sustainable actions; educators motivate learners to transform themselves and their communities. It is crucial to furnish educators with the knowledge, skills, values and behaviours necessary to support sustainability transition.

Wyndham, Australia, has engaged in empowering and mobilizing youth in ESD across schools and kindergartens. Its lifelong learning initiative focuses on young generations who are becoming increasingly interested in sustainable actions, and who are demanding urgent and decisive change, particularly regarding climate crisis. Young people constitute an important stakeholder group, since their actions influence the sustainability trajectory in their communities. Their empowerment and mobilization is thus central to the long-term and efficient realization of sustainability.

The cases studies showcasing environmental classrooms in **Bogotá**, **Colombia**, and an urban gardening project in **Espoo**, **Finland**, demonstrate how local spaces can be used innovatively for ESD. They show that learning is not limited to traditional educational institutions, but can take place everywhere. By designating public areas and spaces to host ESD projects and inspire learning, cities are creating the conditions needed in order to cultivate a culture of lifelong learning for sustainable development.

All of the nine case studies included in this publication show how a multi-stakeholder approach contributes to local ESD initiatives, both at the policy and at the project level. The development of lifelong learning practices depends on two key elements: efforts to bring together various actors from governmental and non-governmental organizations, making sure that educational stakeholders' views on and capacities for ESD are sufficiently accounted for; and measures to integrate and maintain ESD in educational practices. Multi-actor networks and partnerships are essential for the continuity of ESD initiatives in all contexts and areas; they make it possible to develop learning opportunities that respond to local challenges and meet the diverse needs of citizens.

Based on the examples of good practice documented in these nine case studies from selected learning cities, a number of suggestions are made that can be taken into consideration when planning local initiatives to integrate ESD into lifelong learning systems. The shared and recurring difficulties reported by learning cities suggest that the continuity of implemented ESD policies and initiatives relies on a number of factors:

• ESD as an embedded component of local lifelong learning systems. There is a better chance of sustaining ESD initiatives over time if they are systematically embedded into the local lifelong learning system at the level of policy/strategy development or project implementation. A participatory process of policy development will help to build common understanding among stakeholders.

- Financial and human resources. The initiatives' sustainability largely depends on systematic financial support and the availability of human resources. Make effective use of all stakeholders' resources, and make special provision for marginalized groups and individuals.
- Partnerships and networking. Promote partnerships and collaboration among the formal, non-formal and informal learning sectors, and cross-sectorally, in order to create a range of learning opportunities that responds to the local challenges of sustainable development; establish a network that brings together local and national ESD stakeholders to exchange knowledge, best practices and experiences.
- **Communication.** Promote the role of lifelong learning as a catalyst for achieving the SDGs through communication, outreach and advocacy work related to sustainable development and the SDGs. Hold public campaigns and events to raise citizens' awareness and understanding of ESD.
- Monitoring and evaluation. Develop indicators to monitor and assess the implementation of ESD policies and strategies in order to steer related efforts both strategically and effectively.

