SCIENCE
ECOLOGICAL
INTELLECTUAL
AWARENES
INITIATIVE
KNOWLEDGE
INITIATIVE SUSTAINABLE
KNOWLEDGE
DEVELOPMENT
ADVANCED ECOLOGICAL
ENVIRONMENTAL
INITIATIVE
DEVELOPMENT KNOWLEDGE
ECOSYSTEMS
CONSERVATION
LEARNING
SUSTAINABLE

8th Global RCE Conference

Regional Centres of Expertise on Education for Sustainable Development

26-29 November 2013
Nairobi, Kenya

UNITED NATIONS UNIVERSITY

UNU-IAS
Institute for the Advanced Study of Sustainability

Contents

REGIONAL CENTRE OF EXPERTISE
ON EDUCATION FOR
SUSTAINABLE DEVELOPMENT

ACKNOWLEDGED BY

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UNU-IAS

The 8th Global RCE Conference provided the African continent its first opportunity to host the annual event. We would like to express our sincere appreciation to the local organizers for their warm hospitality, particularly the National Environment Management Authority of Kenya (NEMA), RCE Greater Nairobi, and the United Nations Environment Programme (UNEP).

The global RCE community has grown steadily – from seven at the start of the UN Decade of Education for Sustainable Development (UNDESD) in 2005 to 120 today – and is expected to continue to expand in the years ahead, bringing together ESD stakeholders within and across regions. This is indeed a remarkable achievement, and the credit goes to the RCEs themselves for having delivered ESD actions in their respective regional and local communities. Through the years, RCEs have demonstrated good practices that advance ESD learning and research built around a spirit of community empowerment, social learning, and respect for different forms of knowledge. It is this collective spirit that binds RCEs around the world.

The United Nations University's (UNU) engagement with the UNDESD has been manifested in policies and programmes, including the launching within UNU-IAS of the Education for Sustainable Development Programme in 2003.

The major components of the ESD Programme are advancement of ESD through multi-stakeholder initiatives, contributions to the transformation of higher education, contributions to international ESD-related actions, and advancement of ESD knowledge. In promoting RCEs, UNU is supported by the Ubuntu Alliance's Committee of Peers for the RCEs. The Ubuntu Alliance is a strategic alliance of world-leading education, science, and technology organizations who are signatories of the Ubuntu Declaration on Education, Science and Technology for Sustainable Development. It is envisioned that the global RCE community will become a force to be reckoned with in ESD implementation during the UNDESD and beyond 2014.

The issues covered in the 8th Global RCE Conference underscored the importance of the conference's theme of "Promoting Sustainability through Collaboration and Diversity". The conference emphasized the increasing role of higher education in sustainability and the contributions of RCEs, especially in transformative learning and research predicated on change. This publication contains the summarized proceedings of the 8th Global RCE Conference, and it is hoped that outcomes of the conference will be of great use to the international community in further promoting ESD.

Dr. Kazuhiko Takemoto
Director, United Nations University Institute for the Advanced Study of Sustainability (UNU-IAS)

NEMA

The 8th Global RCE Conference took place at a time when several complementary processes, including the Millennium Development Goals (MDGs) and the UN Decade of Education for Sustainable Development (UNDESD), are coming to a close. The conference provided a unique opportunity for reflection, sharing lessons, and developing new strategies on ESD beyond 2014.

It is noteworthy that the RCE fraternity has continued to grow to stand at its current number of 120 RCEs distributed all over the world. In all areas, RCEs are working in tandem with governments and communities to catalyse positive changes.

On the local front, Kenya and NEMA responded to the call from the UNDESD by rolling out several initiatives, including the country's ESD implementation strategy, a draft country ESD policy, hosting of the 1st National RCE Conference, several RCE projects, and five UNU-acknowledged RCEs. NEMA continues to invest significant resources in these efforts as it is convinced that the activities of RCEs will ultimately help realize the constitutional right to a "clean and healthy environment for all Kenyans".

On a continental level, African RCEs continue to grow both numerically and collaboratively. African RCEs, in conjunction with UNU, have been developing capacity-building modules for use by RCEs.

These are important milestones towards strengthening and enhancing the profile of RCEs on the continent. Several continental meetings have been successfully held in South Africa and Nigeria. Initiatives are underway to develop an East African RCE network.
The growing African RCE network provides an excellent opportunity to address sustainability issues, and at the same time strengthen Africa's resilience in the context of contributing to a low-carbon society.

Kenya is indeed particularly proud to have gotten the singular honour to host the 8th Global RCE Conference on behalf of the African region. In a broader context, the conference provided a practical platform to bring on board other key stakeholder groups such as the Vice Chancellors, university commissions, and policymakers. This offered delegates an opportunity to sample African hospitality, and we hope that delegates left the country with fond memories and experiences that will continue to spur their engagement with the core issues of RCEs, i.e. governance, collaborations and networks, research, and transformative learning.

My very best wishes to the RCE fraternity.

Prof. Geoffrey Wahungu
Director General
National Environment Management
Authority (NEMA)

Opening

Professor Olive Mwihaki Mugenda, Vice Chancellor of Kenyatta University, delivered welcoming remarks on behalf of RCE Greater Nairobi, noting that the world had reached a critical time for promoting sustainable development and that the conference theme of "Promoting Sustainability through Collaboration and Diversity" was appropriate and timely as the world faces unprecedented challenges such as climate change while progress in international negotiations remains slow. She warned that the window of opportunity might be closing, so all countries must work together, both rich and poor, and that it is incumbent upon RCEs to cover these critical issues at the Global RCE Conference.

Professor Mugenda applauded the growth of the RCE movement with the observation that these RCE networks constitute a global learning space for ESD, translating global policies into local actions. Higher education institutions can take a leading role in research and knowledge innovation on ESD, and in providing a pool of expertise on ESD. RCEs must be commended for their critical role in the delivery of ESD in their respective communities.

Dr. Kazuhiko Takemoto, Director of the UNU-IAS ESD Programme and Director of the Global RCE Service Centre, emphasized that the year 2014 is important as it commemorates the end of the United Nations Decade on Education for Sustainable Development 2005-2014 (UNDESD). The outcomes of the 8th Global RCE Conference in Nairobi will feed into the 9th Global RCE Conference in Okayama, Japan, and outcomes from the Okayama conference will then contribute to discussions at the UNESCO World Conference on ESD to be held in November 2014 in Aichi-Nagoya, Japan. This was the road map given for 2014 and beyond.

Dr. Takemoto also introduced 18 new RCEs that had been acknowledged since the last Global RCE Conference in September 2012: RCE Middle Albania (Albania), RCE Murray-Darling (Australia), RCE Buea (Cameroon), RCE Quebec (Canada), RCE Euroregion Tyrol (Italy), RCE Greater Pwani (Kenya), RCE Nyanza (Kenya), RCE Hohhot (People's Republic of China), RCE Kunming (People's Republic of China), RCE Inje (Republic of Korea), RCE North Sweden (Sweden), RCE West Sweden (Sweden), RCE Dar es Salaam (Tanzania), RCE Greater Eastern Uganda (Uganda), RCE Greater Manchester (UK), RCE Scotland (UK), RCE Lusaka (Zambia), and RCE Mutare (Zimbabwe).

Professor Judi Wangalwa Wakhungu, Cabinet Secretary of the Ministry of the Environment, Water, and Natural Resources of Kenya, followed the remarks of the previous speakers by highlighting the importance of forging strategic partnerships to put in place appropriate sustainable development (SD) and ESD strategies. As one step in this direction, Kenya has launched its second medium-term plan, focusing on devolution, socioeconomic development, and promoting key flagship programmes such as green growth and waste management.

Kenya has been working to finalize its national sustainable development policy and green growth policy, and it has responded to the UNDESD by developing and implementing a national ESD strategy. Professor Wakhungu stressed that RCEs, among others, provide platforms in formal and informal settings, and several actions have been initiated by the RCEs in the country. Universities have engaged in change projects and programmes including in the areas of biodiversity, solid waste, eco-school programmes, community engagements, and other interventions. The Kenyan constitution of 2010 promotes sustainable development, and all curricula strive to harmonize sustainable development.

Professor Wakhungu said that the National Environment Management Authority of Kenya (NEMA) must be commended for spearheading the RCE movement nationally; the country boasts five existing and four potential RCEs. Kenyan RCEs engage in flagship activities with interventions conducted through collaborative projects. The UNDESD is coming to an end, and the professor noted that it would be prudent to take stock of RCE achievements at this time. She pointed out that the RCEs have played important roles in implementing the ambitions of the "The Future We Want" document produced at Rio+20 and in extending ESD goals beyond the decade, and that the resolutions reached at the 8th Global RCE Conference will contribute to the UNESCO World Conference on ESD in Aichi-Nagoya, Japan in November 2014.

Three keynote presentations were made at the conference:

1. UNEP's Roles in Education for Sustainable Development
Ms. Elizabeth Maruma Mrema
Deputy Director of the Division of Environmental Policy Implementation, UNEP

In her presentation, Ms. Elizabeth Maruma Mrema highlighted the role of UNEP in promoting ESD towards societal transformation. She said that it is important to recognize that societal transformation requires a change in peoples' attitudes, moving towards sustainable production and consumption, which is why environmental education (EE) and ESD at UNEP focus on societal transformation through youth and higher education.

Following the 2004 Bali Strategic Plan, UNEP launched the Global Universities Partnership on Environment and Sustainability (GUPES), with membership across all continents. GUPES aims at mainstreaming EE/ESD in curricula, and Ms. Mrema held it up as an ideal platform for UNEP to enhance collaboration with universities. UNEP has spearheaded the development of the "Greening Universities Toolkit", which views universities as sustainability knowledge-bases. The organization has been able to reach out to large segments of society through this effort. UNEP is currently promoting the green economy, and in this transition the ambition is to reduce the ecological footprint. The UNDESD has raised awareness and promoted the integration of sustainability in many spheres, and Ms. Mrema lauded the RCE movement for demonstrating the growing importance of ESD.

2. ESD and Transformative Learning in RCEs
Prof. Rob O'Donoghue
RCE Makana

Professor Rob O'Donoghue (RCE Makana) emphasized how transformative learning and research are necessary initiatives within RCEs. In education for sustainability, a whole-institution approach that embraces societal, economic, environmental, and cultural dimensions is imperative. Transformative learning implies changes to practical, intellectual, and political processes of reorientation. RCEs are involved in transforming modern education to enable transformative learning, global citizenship, and sustainability, so Professor O'Donoghue stressed the need to mix communication, individual competencies, community learning, and social innovation in mediating transformative learning. He named three lenses for learning in ESD: the holistic, the critical envisaging of alternatives, and that of transformative engagement, and said that, overall, RCEs should engage in innovation and change processes from business-as-usual to sustainability situations in their ESD activities.

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3. Education for Sustainable Development – Towards a Global Action Programme after 2014

Mr. Alexander Leicht
Chief, Section of ESD, UNESCO

Mr. Alexander Leicht provided a brief overview on the increased presence of ESD on the national and international development scenes, while highlighting some major challenges, such as moving from pilot projects to changes in policy, both from small to large scale, and from the margins to the mainstream. He also presented an overview of the Global Action Programme to scale up ESD within the context of the post-2014 agenda. The goal of the programme is to mobilize education and learning to accelerate progress towards sustainable development by reorienting and enhancing the role of education and learning. There are five priority action areas of the Global Action Programme on ESD. These are: advancing policy, transforming learning and training environments, building capacity of educators and trainers, empowering and mobilizing youth, and accelerating sustainable solutions at the local level. Mr. Leicht said that, to successfully launch the programme, it is important to identify "lead partners" in each of the five areas. These partners would help in the implementation of the programme through a global coordination mechanism. The programme is expected to be launched, and commitments for its implementation made, at the World Conference on ESD in November 2014 in Aichi-Nagoya, Japan.

Following the keynote presentation, a panel discussion featuring Mr. Leicht (UNESCO), Zinaida Fadeeva (UNU-IAS), Won J. Byun (Asia-Pacific), Tichaona Pesanayi (Africa), Roger Petry (Americas), Salvador Garcia (Americas), and Detlev Lindau-Bank (Europe) discussed the following four key questions:

1. In what ways can individual RCEs contribute to the implementation of the post-2014 Global Action Programme on ESD at the local level?

2. What are the challenges and roadblocks to be overcome?

3. How can the global network of RCEs effectively collaborate in delivering ESD in the framework of the Global Action Programme, including engagement with regional and international policies and synergies with other networks?

4. What are the priority areas that RCEs should be working on in the context of the Global Action Programme in local communities?

Clemens Mader

Masaaki Nagareo

RCE Flagship Projects and RCE Recognition Awards

For the second year running in 2013, RCEs nominated flagship projects for the RCE Recognition Awards.
A total of 22 projects from 20 RCEs were submitted for assessment.
The projects nominated and assessed for the 2013 RCE Recognition Awards illustrate how RCEs are addressing prioritized local sustainable development challenges.
They also demonstrate how RCEs are contributing to multi-stakeholder learning for sustainable development. Some of the projects have leveraged partnerships and funding for other projects within RCEs.

The projects were presented in three parallel sessions as indicated on the map.

Assessment was undertaken by the Global RCE Service Centre in collaboration with members of the RCE Recognition Award working group. The final project assessment was comprised of three broad categories:

1. **Category A:** Outstanding Flagship Projects – RCE Grand Rapids, RCE Greater Western Sydney, RCE Severn, RCE Graz-Styria, RCE KwaZulu Natal, and RCE Okayama.

2. **Category B:** Acknowledged Flagship Projects – RCE Kano ("Rural Women and Climate Change"), RCE Bogota, RCE Munich, RCE West Sweden, RCE British Columbia, RCE Greater Dhaka, RCE Minna, RCE Buea, and RCE Mau Ecosystem Complex, for meeting most of the award criteria.

3. **Category C:** Honourable Mention – RCE East Kalimantan, RCE Hohhot, RCE Kano ("Waste for Wealth Program"), RCE Kakamega and RCE Penang.

From all nominations, six projects were given awards under **Category A**, "Outstanding Flagship Projects", for making significant contribution to learning, development, and collaborative governance, and are highlighted in the boxes on the following pages.
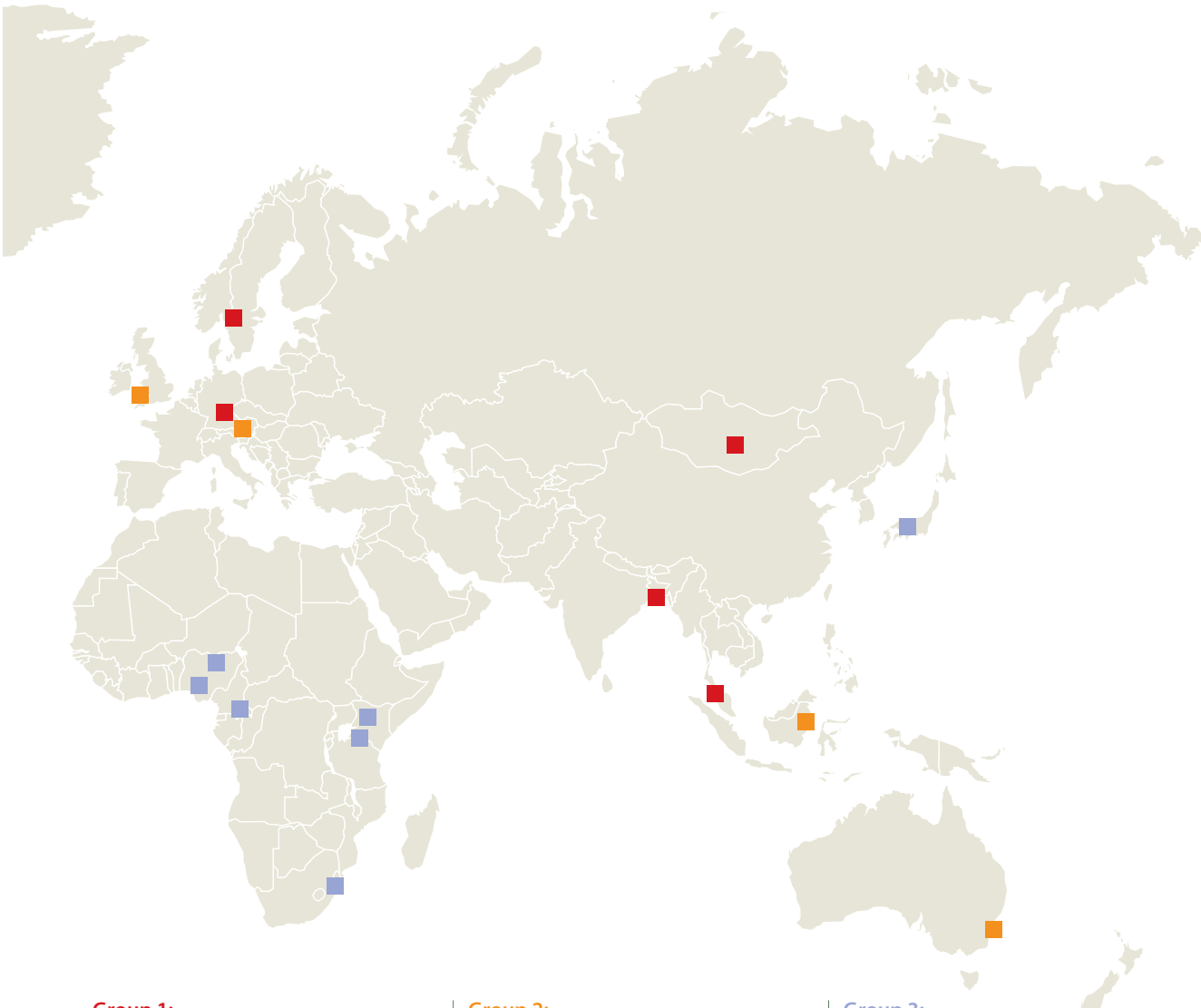
Group 1:
Creating Sustainability Awareness through Formal and Informal Events

RCE Bogota: Environmental Forums and Educational Conferences

RCE Munich: Munich Climate Autumn

RCE West Sweden:
Summer Seminar: Futures Experience

RCE Penang: Simple Ideas, Challenging Implementation: Negotiating the Journey through Kampus Sejahtera – the Story of the USM Youth

RCE Greater Dhaka: Knowledge Based Area Development (KBAD) Project Expansion

RCE Hohhot: Inner Mongolia Higher Schools Environment and Sustainable Development Innovation Lecture

Group 2:
Transformative Learning and Curriculum-change Processes

RCE Graz-Styria: SUSTAINICUM – Educational Materials

RCE Grand Rapids: Youth Virtual Project on Water Issues

RCE Severn: Leading Curriculum Change for Sustainability

RCE Greater Western Sydney: Youth Eco Summit

RCE British Columbia: Environmental Learning Dissemination Project

RCE East Kalimantan : Home Reading Program toward Improvement of Quality Lifelong Education

Group 3:
Community Development and Sustainable Local Livelihoods

RCE Okayama: Kyoyama ESD Environment Project (KEEP) to Promote Regional ESD

RCE Kano: Rural Women and Climate Change

RCE Minna: Using Used Diapers to Transform the Environment and Improve Livelihood Security

RCE Mau Ecosystem Complex: Bee Keeping and Sustainable Livelihood

RCE Kakamega-Western: BUMA Fish and Integrated Farm Story

RCE KwaZulu Natal: River Health Monitoring: Public Mobilisation using the miniSASS Community River Health Monitoring Tool

RCE Buea: Fuel Efficient Stoves

RCE Kano: Waste for Wealth Program

RCE Flagship Projects and RCE Recognition Awards

RCE Grand Rapids:
Youth Virtual Project on Water Issues

RCE Grand Rapids hosted the 1st Virtual RCE Youth Conference – empowering the world's next generation of leaders in regional and universal issues. Six RCEs from three continents joined to equip youth with the tools to communicate and collaborate on sustainability initiatives with a focus on water systems. The virtual conference gave students perspective and practice in a global dialogue to better understand the unique water dilemmas facing the regions of the world and in turn to reveal and embrace the universal themes of sustainable evolution through dialogue, empathy, and collaboration. Innovation and problem-solving skills were applied in order to address these most complex issues.
The project platform, using an online teaching tool called Blackboard, allowed students to engage in a virtual classroom experience. The project also gives inspiration to other conferences with different thematic foci.

RCE Severn:
Leading Curriculum Change for Sustainability

The challenge pursued in **RCE Severn's** project was to bring ESD into central curriculum-development processes that influence course design and delivery in all subjects. Project design was informed by systems thinking and the need to engage a range of stakeholders both locally and nationally to build capacity for ESD in higher education. The project was carried out over two years and sought collaboration and change at several levels: 1) institutions (local/regional), through pilot projects, to establish strategic policy and practices for ESD in the university curriculum; 2) sector (national/UK-wide), through collaboration with key government departments concerned with UK higher education, including close work with the UK Quality Assurance Agency (QAA); and 3) university educators and professional staff. The project brought ESD into the heart of the higher education system, and broke new ground for ESD as the first project to tackle this issue worldwide.

RCE Greater Western Sydney:
Youth Eco Summit

RCE Greater Western Sydney's YES initiative is a unique two-day curriculum-based sustainability event designed to encourage students to adopt sustainable practices in all areas of life, to showcase practical initiatives, and to promote student leadership. It includes hands-on workshops, seminars, displays, and active learning projects for more than 6,000 students and their teachers from 160 schools. It provides a unique platform for students to teach students, and for industry and tertiary educators to engage with youth on a wide range of sustainability topics. The ultimate outcome of YES is that students from primary and secondary schools in western Sydney and beyond who participate in the programme are involved in highly engaging educational activities that equip them to be active participants in creating a more sustainable world in their schools and in their communities. In addition, their teachers are exposed to innovative curriculum ideas and resources that demonstrate strategies and opportunities for building knowledge and capacity to undertake sustainability education initiatives in their schools.

RCE Graz-Styria:
SUSTAINICUM – Educational Materials

By identifying and mapping the various facets of sustainability in higher education teaching, the **RCE Graz-Styria** project aims at fostering sustainability in higher education teaching as well as connecting different disciplines. The partners – three universities who are members of the RCE – have developed an online platform with a variety of different types of teaching resources (building blocks, teaching methods, lecture notes, and teaching modules) that should support teachers both in terms of content and through the practical application of innovative teaching methods, as well as promote systemic and holistic thinking. Particular focus areas are in the fields of climate, energy, resources, growth, resilience, and risk, but also aspects of education and lifelong learning, sustainable urban and regional development, health and quality of life, human rights, and mobility are being addressed. As of October 2013, approximately 140 peer-reviewed teaching resources are available online in German and English. University educators can utilize existing resources and share their own materials, methods, and concepts regarding sustainability-related topics.

Bella Zanes

RCE KwaZulu Natal:
River Health Monitoring: Public Mobilisation Using the miniSASS Community River Health Monitoring Tool

Partners of **RCE KwaZulu-Natal** are collaborating to develop and implement the Stream Assessment Scoring System (miniSASS), a new miniSASS website, and database, which have now gone live. The website provides a dedicated home for the miniSASS community river health biomonitoring tool, to promote its use and to serve the miniSASS user community by providing a central hub for river health data, supporting materials, instruction, and news of the latest activities that have taken place. The database is in the public domain and visible at all times to all users. The interactive Google Earth map and database allows miniSASS users of all ages to explore their catchment, find their river, and then upload their miniSASS results. Results are continuously contributed by users as an innovative citizen-science activity. Users can explore all results and compare and contrast river health across catchments and in relation to land use activities, while connecting with others who are sampling rivers in their communities. Land users such as farmers and industries can monitor and self-regulate the impact of their activities on the surrounding river environment.

RCE Okayama:
Kyoyama ESD Environment Project (KEEP) to Promote Regional EESD

The Okayama Kyoyama ESD Promotion Commission has been the driving force behind the ESD movement in Okayama as well as the establishment of **RCE Okayama**. It was established in 2006, building on the achievement of the Kyoyama ESD Environment Project (KEEP) – a participatory environmental education project implemented in close collaboration with diverse stakeholders in the Kyoyama District, including Kominkan (social learning institute / community learning center). In addition to the awareness raising and outreach activities of the ESD Summit and the ESD Festival, the Commission also organized various community-based activities such as the "Kyoyama Shopping Bag Contest" and the Kyoyama ESD "Paths of Greenery and Water" through which people take actions for change and contribute to creating a better society. A number of projects they have initiated have become recognized as a space for dialogue and have established common knowledge. They have also produced educational materials, engaged with various stakeholders, including children with disabilities and their parents, and expanded the scopes of their activities to societal and economic aspects as well as environmental issues.
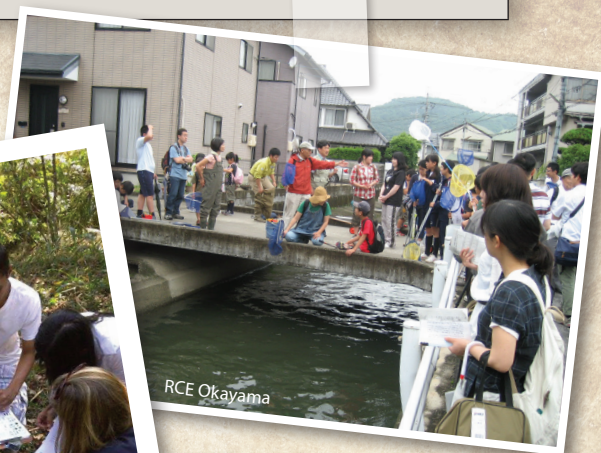

Bella Zanesco

Richard Kromp

RCE Kwazulu Natal

RCE Okayama

Policymakers' Roundtable Discussions

The objective of the Roundtable Discussion was to share ideas on how RCEs can contribute to an enabling policy environment for mobilizing education and learning for sustainable development and for scaling up ESD actions in all sectors of society.

Lead speakers and participants were invited to address issues pertinent to policy support based on their experiences at the local, national, and international levels.

At the national level, a leadership approach to engagement was suggested. It was interesting to hear that RCE Minna in Nigeria was a product of the Niger state government, and that the government is central to the RCE concept and a founding supporter of the RCE. As to policy relating to ESD, the government focuses on access and quality of education at all levels, and free education at all levels with emphasis on girls' education. The policy is also to develop programmes with specialized teacher education, with emphasis on producing quality teachers.

Japan's impact is far-reaching. The Japanese Ministry of the Environment supports ESD networking in terms of higher education with UNU through ProSPER.Net (the Promotion of Sustainability in Postgraduate Education and Research Network, under the auspices of UNU-IAS) and community-based multi-stakeholders' networking through RCEs acknowledged by UNU.

Japan also has strong ESD policies domestically. Domestic initiatives in ESD include developing capacity-building for sustainable regional development, realizing and connecting ESD projects, registering domestic ESD activities on a website, and organizing ESD fora for those engaged in registered ESD projects to encourage mutual learning. The World ESD Conference in 2014 will be organized by UNESCO and the Government of Japan.

Kenya provides a good model of leadership where RCEs are formally recognized as instruments of change, with the national government promoting and mentoring RCEs in the country.

At the subnational or local level, an enabling and facilitative approach can be taken towards engagement. **Espoo, Finland** is a good example, showing enabling conditions for policy and a marketplace of ideas and innovation for ESD by providing the so-called "Urban Mill" as a space for multiple stakeholders to discuss and initiate innovative ideas on ESD/SD.

Okayama, Japan exemplifies engagement in the promotion of ESD, with the local government facilitating multi-stakeholder involvement.
The new city mayor is very eager to promote ESD activities, as was the former mayor. Post-2014, RCE Okayama plans to scale up new concepts in ESD promotion and incorporate them into city policy, while local governments act for ESD and municipal stakeholders.

The third model of engagement, appropriate for intergovernmental and international organizations, is that of providing a supporting role. **UNESCO** and **UNEP** for example, both of which were represented at the roundtable, provide supporting roles in promoting ESD and implementing UNDESD goals in light of their respective mandates. It was noted that ESD should be integrated into both education and SD policies. There is also a need to distinguish different levels of policy – global, regional, national, subnational, and local – while linkages from global to local and across sectors are crucial for effective policy support and engagement.

Clemens Mader

Masaaki Nagareo

8th
Global RCE
Conference
2014

Book Launches

Through its ESD series of publications, UNU-IAS offers RCEs opportunities to share case studies, experiences, and knowledge for the purpose of cross-boundary social learning. Two new books in the series were launched during the conference. These were:

1. ***Innovation in Local and Global Learning Systems for Sustainability: Traditional Knowledge and Biodiversity*** (*www.ias.unu.edu/resource_centre/ TKB%20Book%20FINAL%20Jan%202013.pdf*). This book presents case studies on how RCEs are harnessing local resources to address sustainable development challenges with reference to traditional knowledge and biodiversity. The book links policy and practice contexts, with sections organized around major objectives of the Convention on Biological Diversity (CBD).

2. ***African Heritage Knowledge in the Context of Social Innovation*** (*www.ias.unu.edu/resource_centre/ UNU_Booklet_MB2013_FINAL_Links_v12.pdf*). This book provides starting points for mobilizing local heritage and knowledge practices in RCE initiatives towards more equitable and sustainable futures. The book assembles practical examples of heritage knowledge and social innovation in the context of African RCEs.

Besides the UNU-IAS publications, a new book edited by Professor Daniella Tilbury (Director, RCE Severn) and Dr. John Blewitt (Partner, RCE Severn) was also launched at the Nairobi Conference. ***Searching for Resilience in Sustainable Development*** examines ways in which resilience can be created within the web of ecological, socioeconomic, and cultural systems that make up the world.

Africa and the Middle East

1. Buea, Cameroon
2. Cairo, Egypt
3. Dar es Salaam, Tanzania
4. Ghana
5. Greater Eastern Uganda
6. Greater Mbarara, Uganda
7. Greater Nairobi, Kenya
8. Greater Pwani, Kenya
9. Jordan
10. Kakamega-Western Kenya
11. Kano, Nigeria
12. Khomas-Erongo, Namibia
13. KwaZulu Natal, South Africa
14. Lagos, Nigeria
15. Lesotho
16. Lusaka, Zambia
17. Makana & Rural Eastern Cape, South Africa
18. Maputo, Mozambique
19. Mau Ecosystem Complex, Kenya
20. Minna, Nigeria
21. Mutare, Zimbabwe
22. Nyanza, Kenya
23. Senegal
24. Swaziland
25. Zomba, Malawi

RCEs in Action

More than 60 delegates from 17 acknowledged RCEs and four candidate RCEs attended and shared achievements and challenges faced in implementing ESD in Africa. 2013 highlights included increased visibility of African RCEs, improved interactions with policymakers, and enhanced capacities to deliver ESD. Capacity development processes focused on improving transformative learning processes, strengthening governance and coordination mechanisms with reference to Ubuntu philosophy, and sharing community-engaged research case studies. Participants shared success stories on how to engage local communities in ESD activities. Discussions focused on how to jointly fundraise for ESD research projects, how to strengthen RCE governance and coordination mechanisms, and how more universities need to be directly engaged in African RCE activities.

Four action points emerged from the discussions:

1. Implement exchange visits across RCEs.

2. Complete capacity development materials.

3. Increase visibility of African RCEs by seeking support from the African Union and writing joint funding proposals.

4. Implement a mentorship programme for new RCEs.

Clemens Mader

Americas

1. Bogota, Colombia
2. British Columbia (North Cascades), Canada
3. Chaco, Argentina
4. Curitiba-Parana, Brazil
5. Grand Rapids, USA
6. Greater Sudbury, Canada
7. Guatemala
8. Lima-Callao, Peru
9. Mauricie/Centre-du-Québec, Canada
10. Montreal, Canada
11. North Texas, USA
12. Rio de Janeiro, Brazil
13. São Paulo, Brazil
14. Saskatchewan, Canada
15. Tantramar, Canada
16. Toronto, Canada
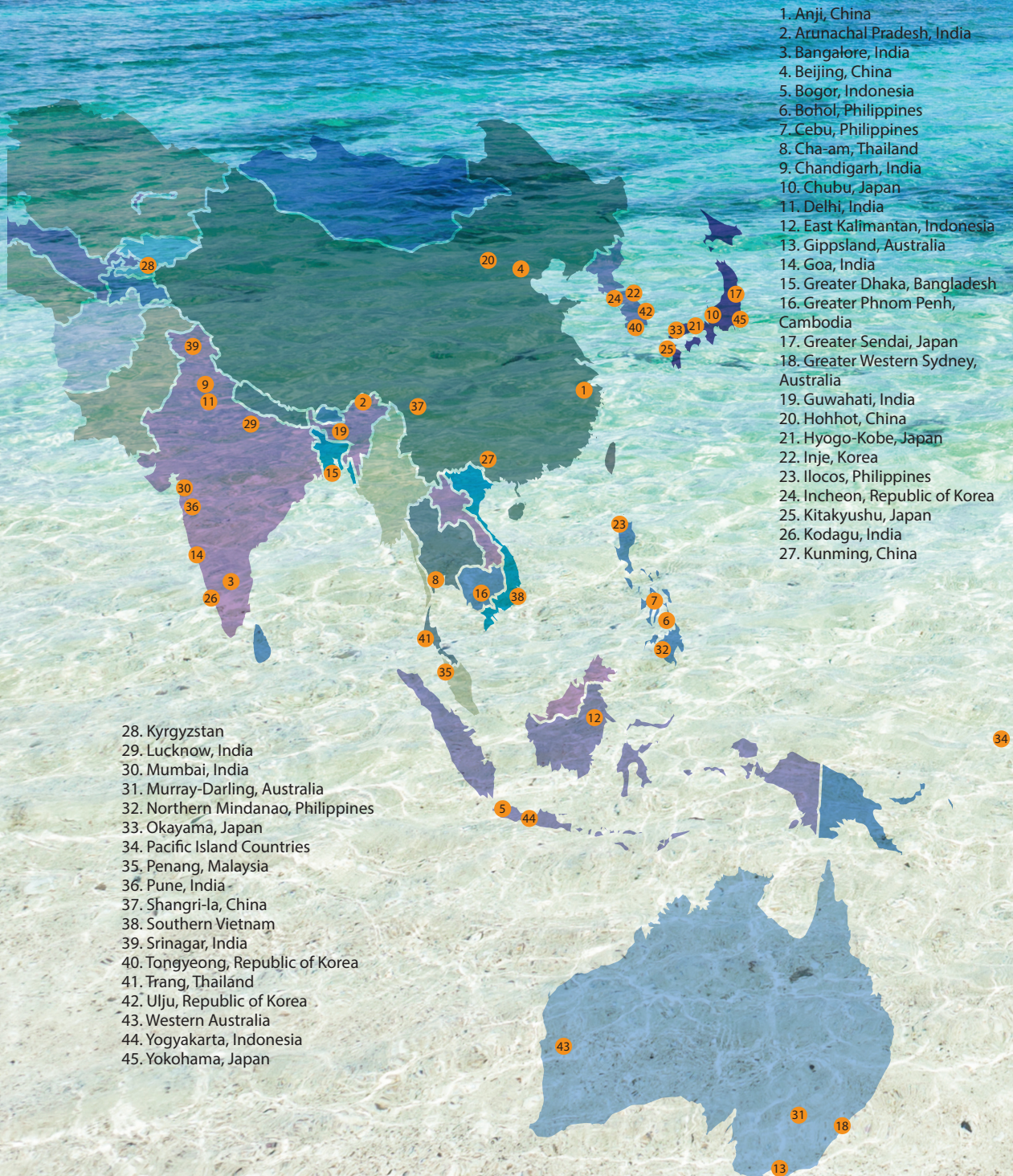17. Western Jalisco, Mexico

RCEs in Action

A follow-up was held to discussions at the Americas continental meeting at the 7th Global RCE Conference held in Tongyeong, Republic of Korea in 2012 and the 2nd RCE Conference of the Americas held in Lima, Peru in February 2013. The meeting emphasized the need for regular communication (e.g., through Skype, video, or phone conferences) for follow-up on action items and possible virtual continental meetings. RCEs were encouraged to share more information through the UNU-IAS portal and publications. There was interest in creating an online database of good ESD practices in the Americas online. Also discussed were the idea of creating a network of RCEs in the Americas in order to obtain and manage funding from organizations for new projects and the need to explore other ways that existing UN agencies and ESD organizations can help RCEs in Latin America to network and develop new RCEs.

The following action points emerged from the discussions:

1. Develop diploma programmes in waste management, traditional knowledge, sustainable cities, and intercultural knowledge and biodiversity (including input from NGOs and governments at different levels).

2. Enhance networking regarding the possibility of involving museums in systems to increase the motivation of citizens for ESD and to build relationships.

3. Organize a Virtual Youth Conference on Water.

4. Launch an ESD Open Access Journal.

5. Discuss strategic directions regarding 2014 ESD activities in Japan and post-Decade guidance for the RCE movement.

6. Contribute to the Global Action Programme on ESD.

Asia-Pacific

1. Anji, China
2. Arunachal Pradesh, India
3. Bangalore, India
4. Beijing, China
5. Bogor, Indonesia
6. Bohol, Philippines
7. Cebu, Philippines
8. Cha-am, Thailand
9. Chandigarh, India
10. Chubu, Japan
11. Delhi, India
12. East Kalimantan, Indonesia
13. Gippsland, Australia
14. Goa, India
15. Greater Dhaka, Bangladesh
16. Greater Phnom Penh, Cambodia
17. Greater Sendai, Japan
18. Greater Western Sydney, Australia
19. Guwahati, India
20. Hohhot, China
21. Hyogo-Kobe, Japan
22. Inje, Korea
23. Ilocos, Philippines
24. Incheon, Republic of Korea
25. Kitakyushu, Japan
26. Kodagu, India
27. Kunming, China

28. Kyrgyzstan
29. Lucknow, India
30. Mumbai, India
31. Murray-Darling, Australia
32. Northern Mindanao, Philippines
33. Okayama, Japan
34. Pacific Island Countries
35. Penang, Malaysia
36. Pune, India
37. Shangri-la, China
38. Southern Vietnam
39. Srinagar, India
40. Tongyeong, Republic of Korea
41. Trang, Thailand
42. Ulju, Republic of Korea
43. Western Australia
44. Yogyakarta, Indonesia
45. Yokohama, Japan

RCEs in Action

18 RCEs and one candidate RCE participated in the Asia-Pacific continental discussion. Issues discussed at the 6th Asia-Pacific RCE meeting held in Kitakyushu, Japan in October 2013 were revisited. The meeting included discussions on youth, community, schools, biodiversity, and disaster risk reduction, as well as on common challenges faced in the course of planning and implementing activities. Participants also discussed the Sejahtera Project led by RCE Tongyeong, which develops a platform for collaboration on ESD for interested RCEs in the Asia-Pacific region. Potential contributions of Asia-Pacific RCEs to the implementation of the Global Action Programme on ESD were also considered, with specific reference to policy support, whole-institution approaches, training, youth, and local communities.

The following action points emerged from the discussions:

1. Enhance collaboration in priority thematic areas across RCEs in the region and beyond.

2. Plan for the Asia-Pacific RCEs' participation at the ESD and RCE events in Japan in 2014 to commemorate the conclusion of the UNDESD.

3. Further discuss possible RCE contributions to the implementation of the Global Action Programme on ESD.

Masaaki Nagareo

Europe
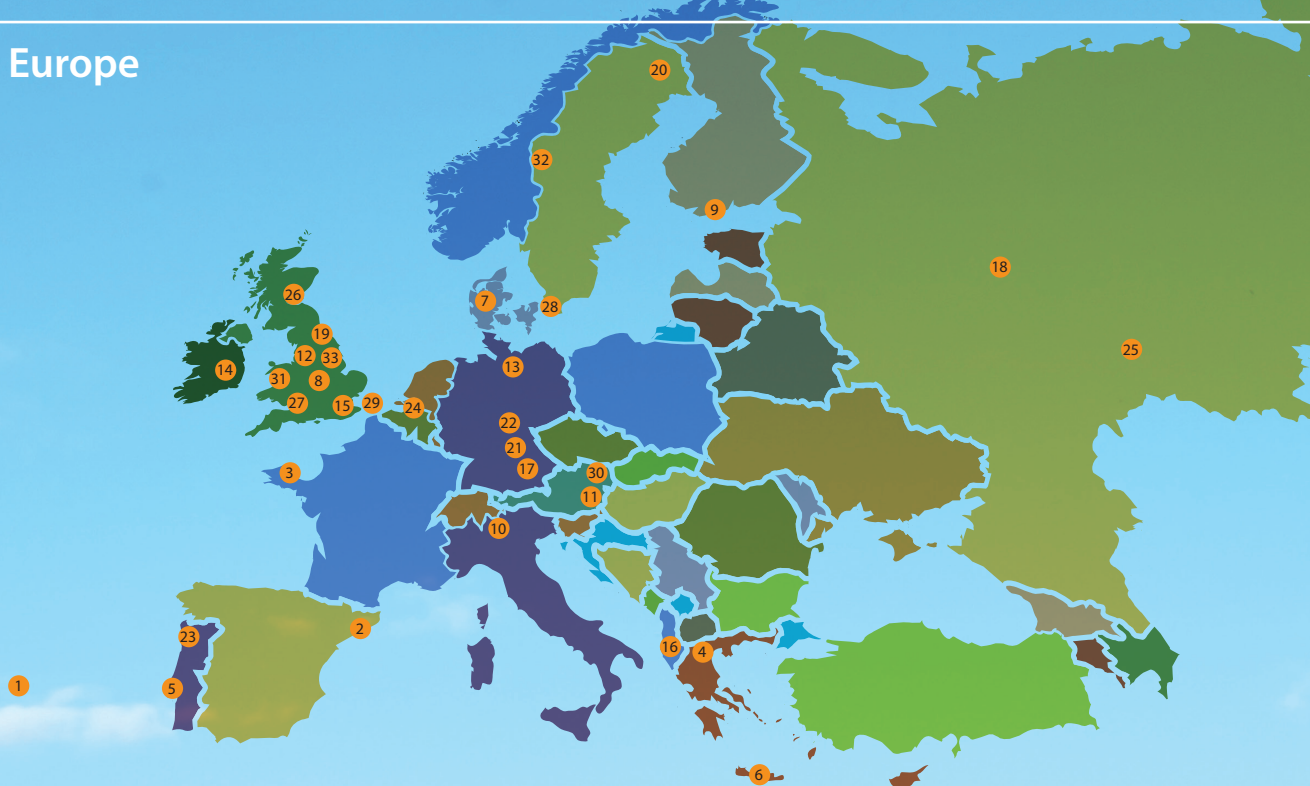
1. Açores, Portugal
2. Barcelona, Spain
3. Brittany, France
4. Central Macedonia, Greece
5. Creias-Oeste, Portugal
6. Crete, Greece
7. Denmark
8. East Midlands, UK
9. Espoo, Finland
10. Euroregion Tyrol, Italy
11. Graz-Styria, Austria
12. Greater Manchester, UK
13. Hamburg, Germany
14. Ireland
15. London, UK
16. Middle Albania
17. Munich, Germany

18. Nizhny Novgorod, Russia
19. North East, UK
20. North Sweden
21. Nuremberg, Germany
22. Oldenburger Münsterland, Germany
23. Porto Metropolitan Area, Portugal
24. Rhine-Meuse
25. Samara, Russia
26. Scotland, UK
27. Severn, UK
28. Skåne, Sweden
29. Southern North Sea
30. Vienna, Austria
31. Wales, UK
32. West Sweden
33. Yorkshire and Humberside, UK

RCEs in Action

About a third of all RCEs in Europe and two candidate RCEs attended the discussion. Updates on actions following the three European meetings held in Barcelona, Kerkrade, and Saint Petersburg in 2013 formed part of the meeting. The issue of "dormant" RCEs was recognized as a challenge that requires RCEs to work together to enhance communication. Another important issue was global RCE assessment and reporting, acknowledging that engaging in this self-assessment process is a good opportunity for RCEs to discuss and improve the quality and impact of activities and networking.

Several RCEs shared projects in which they are involved and invited other RCEs to engage in specific activities and meetings. A conclusion was that there is a need to create a space where RCEs can exchange their programmes and network with other RCEs that are working in similar areas.

Three action points emerged from the discussions:

1. Exchange experiences and enhance communications: Develop an interactive European RCE map and use UNU-IAS communications tools (the bulletin and RCE portal) further to enhance regional engagement.

2. Share ideas and build partnerships: Set up an online marketplace focused on thematic ESD areas and organize a webinar series on hot ESD topics relevant to the global and European RCE communities.

3. Increase visibility and improve coordination: Draft a proposal for European RCEs' unique selling points, inform European policy developments, and apply for an INTERREG C project that could fund a European coordination office.

Clemens Mader

Clemens Mader

Sustainable Consumption and Production

RCEs in Action

Sustainable vocational schools can have a central role in promoting sustainable consumption and production, and RCEs gathered in Nairobi discussed a project idea regarding vocational training and schooling. This project has a research focus and an emphasis on promoting and supporting practical training and short courses for people in regions around the world. It seeks to investigate how, through RCEs, regions in the world can determine their educational needs for vocational training, establish a model vocational school or training centre in line with determined educational needs, and find local, regional, or national support to implement the project.

The following action points to move the project forward emerged from the discussions:

1. Identify potential colleagues for the project group.
2. Identify potential role models.
3. Identify potential candidates for new school initiatives.

Traditional Knowledge and Biodiversity

RCEs in Action

RCE learning experiences from recent publications confirm that approaches to curricula are diverse, ranging from specialist traditional knowledge (TK) curricula to co-integration with wider present-day knowledge. There is a need to document the diverse approaches and processes of engagement with TK and biodiversity through a participatory process for RCE access. Because knowledge is reproduced through a balance of mediation and practice, new generations produce and maintain knowledge that responds to changing circumstances and needs. Elders recognize this from their own experience and seldom exercise ultimate authority, but rather work in their communities to come up with best ways of knowing and doing things together. The state should support recognition of knowledge and its availability to the commons through recognition of communities as custodians and beneficiaries.

The following action points for future collaboration emerged from the discussions:

1. Work with traditional knowledge and ecosystem services to be documented with stakeholders so that knowledge is accessible.

2. Collect and study various approaches to integration of TK into formal education in order to prepare capacity development modules.

3. Involve youth from RCEs in TK discussions, improve local livelihoods by strengthening bio-cultural resources through portal discussions and capacity-building programmes, etc.

Higher Education

RCEs in Action

Higher education institutions play a central role in enabling scalability of regional sustainability initiatives within RCE and global sustainability-initiative frameworks. RCEs can play a key role in the transformation of higher education institutions as well as in the upscaling of ESD initiatives for the benefit of society. RCEs gathered in Nairobi explored the idea of scalability of sustainability initiatives in the science-society interface and identified challenges and potentials in scaling sustainability initiatives.

The participants discussed how to institutionalize successful initiatives between higher education and society. Discussions illuminated conditions necessary for institutionalizing ESD initiatives in the higher education/community interface. It was pointed out that UNEP is scaling up local university projects through the Global Universities Partnership on Environment and Sustainability (GUPES) network.

The following key action points that emerged from the discussion:

1. Analyse workshop data and share findings through a workshop report on how higher education institutions within an RCE network can enable the institutionalization of sustainability initiatives.

2. Draw upon workshop findings for further research on framework conditions that can support the scaling of collaboration among higher education institutions and communities.

3. Further identify how higher education institutions in the RCE network can enable the institutionalization of sustainability initiatives.

4. Undertake joint activities aimed at enhancing strong collaboration within higher education institutions (e.g. doing joint publications in the newly-established open-access journal 'Eco-thinking' by RCE British Columbia/Simon Fraser University).

Clemens Mader

Disaster Risk Reduction

RCEs in Action

Resilience is looked at in terms of "prevention and mitigation", "preparedness", and "rehabilitation". The key stage in disaster risk reduction (DRR) is preparedness, but if it is not a priority at the policy level, awareness and preparedness can be very poor. It is important to put in place early warning systems and ensure that appropriate frameworks exist right down to the grassroots or community level by involving schools through formal and informal education. There is also a need to rethink development by reinforcing existing infrastructure and strictly avoiding no-go zones and hazard-prone areas. Putting in place strong enforcement mechanisms and ensuring that policy is pro-public are key features of DRR strategies.

At the conference, RCE Cebu and RCE Northern Mindanao in the Philippines shared firsthand experiences in light of super typhoon Haiyan, which struck the central region of the archipelago in November, 2013.

The following action points emerged from the DRR discussion:

1. Compile an inventory of RCEs already engaged in and those interested in DRR, highlighting skills, capacities, and expertise, so as to create a ready-to-tap database of members working on disaster management.

2. Design and implement awareness, education, outreach, training, and capacity-building measures for various target groups.

3. Develop learning case studies classified into preparedness, response, and rehabilitation.

Climate Change

RCEs in Action

In their role as learning communities and networks, RCEs are addressing the challenges of climate change using a three-pronged strategy of awareness building, capacity development, and collaboration among stakeholders. RCEs discussed challenges they face in enabling learning for climate-change adaptation and mitigation in their regions. Discussions highlighted the importance of considering climate change in relation to other issues, such as livelihood and resilience.

The following action points emerged from the discussions:

1. Design a process for documentation of relevant ESD practices.

2. Promote youth actions on climate change.

3. Implement capacity development programmes on climate change.

4. Engage with the developing UNFCCC Alliance for Article 6 campaign on climate change.

Health and Sanitation

RCEs in Action

RCEs, as unique multi-stakeholder initiatives, can contribute to health and sanitation in the regions in which they operate. In Nairobi, participants discussed topics such as healthy foods, diagnostic technologies, South-South cooperation, health promotion, and the role of higher education within the broad theme of health and sanitation. It was proposed that RCEs could initiate a series of webinars on climate change and health with the involvement of the UNU International Institute for Global Health (UNU-IIGH). RCEs are invited to contribute articles for a publication on health and sanitation.

Three action points emerged from the discussions:

1. Document RCE good practices and prepare a database that could contribute to capacity-development programs.
2. Involve higher education institutions in research and development on health and sanitation.
3. Enhance the focus on water-related issues as well as traditional knowledge and biodiversity resources for health, nutrition, and well-being.

Teacher Education and Better Schools

RCEs in Action

RCEs are involved in promoting the integration of sustainable development principles, values, and practices into teacher-education programmes. Such integration requires quality teacher education that equips teachers with key competences in life skills. Citizenship education is therefore an integral part of ESD. In Nairobi, participants deliberated on questions such as "who is a teacher" and "how to become a teacher", in order to provide useful insights into ways of improving teacher education and schooling. It emerged that some RCEs are improving teacher education through capacity development and research programmes, while others incorporate global and cross-cultural perspectives into teacher education through student exchanges across RCEs. Addressing issues related to indigenous people in the curriculum, as well as improving science education, could help improve the quality of learning in schools.

The following key action points emerged from the discussions:

1. Collect and document stories of successful positive change in RCEs.
2. Define common quality criteria for teacher education in ESD through sharing of teacher-training manuals and materials on the RCE portal.
3. Develop, collect, and share online materials and e-learning modules through the RCE portal.
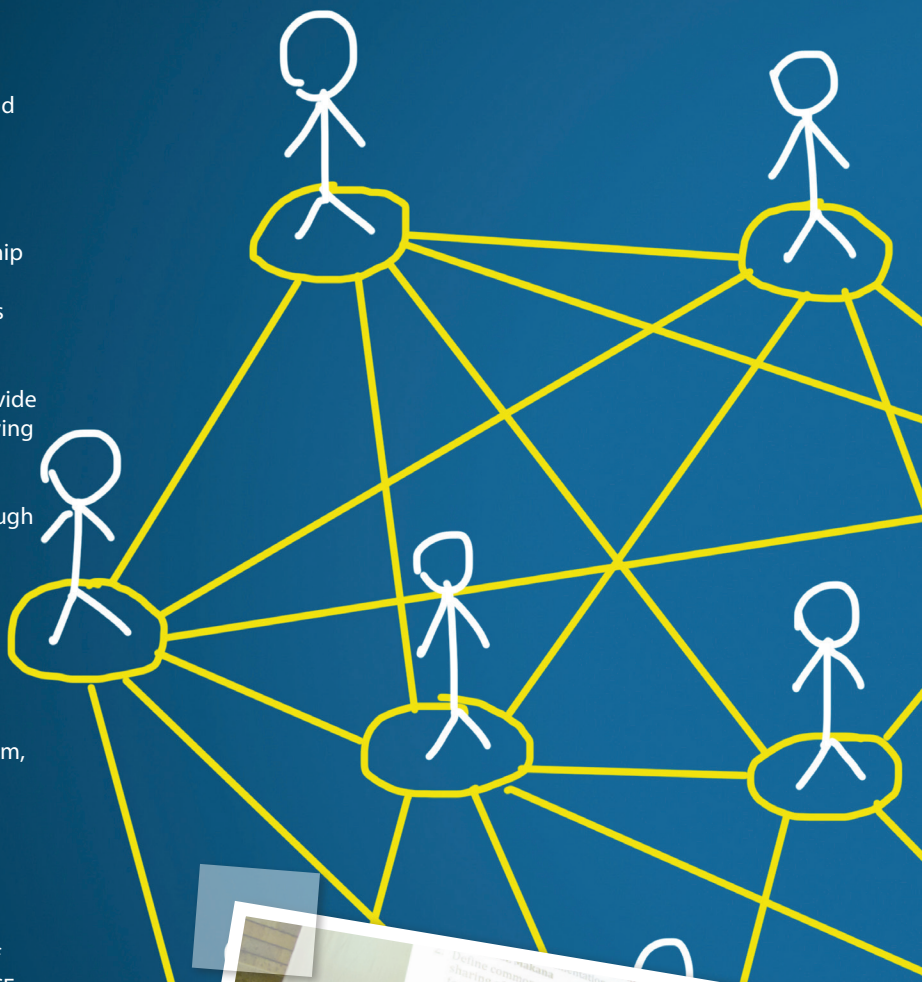
Youth

RCEs in Action

RCEs have identified five strategies for engaging youth in ESD activities. These are:

1. Providing more platforms for youth participation.
2. Recognition by formal education systems of youth participation in RCE activities.
3. Enhancing communication between youth members at both intra-RCE and inter-RCE levels.
4. Encouraging youth involvement in the private sector through training and capacity-building.
5. Involving media in promoting youth activities in the community.

Discussions at the Nairobi conference dwelt on how to engage youth in RCE projects, with the ability of RCEs to collaborate with youth on projects from identification of initiatives all the way to implementation. A collaborative and inclusive way to create cohesive projects through the global RCE network becomes possible by involving and incorporating youth members on RCE boards and decision-making processes in particular, adopting a bottom-up approach. RCEs are best placed to provide research and training since most of them are coordinated by tertiary institutions. The kind of structure recommended would be to have an RCE Global Youth network evolving from the local to the global level.

The following key action points emerged from the discussions:

1. Establish a Global RCE Youth Network to coordinate youth affairs within the entire Global RCE network.
2. Prepare a concept paper on a framework for the Global RCE Youth Network for sharing and posting on the RCE portal.
3. Actualize the RCE Global Youth Network. RCEs serving as youth coordinators selected at the 7th Global RCE Conference to represent the four continental regions are to nominate a representative to work on this.
4. Appoint a youth representative to all RCE management boards.

Strategic and Operational Sessions

Capacity Development:

Capacity development in RCEs is about fostering the skills, awareness, and attitudes to execute actions in sustainable ways, which means building structures, processes, and systems to enable financial management, coordination, and leadership. It also involves creating networks of opportunities for training, building leadership, professional development, and curriculum development, especially for university-led RCEs.

Participants at the 8th Global RCE Conference in Nairobi reflected on both successes and challenges in planning, implementing, and evaluating capacity-development efforts. RCEs need to tap into their core capabilities to cultivate the potential of both formal and informal learning. Partners need to be mobilized for fundraising, to make issues locally relevant and culturally appropriate, and to work with policymakers in capacity-development initiatives. It is also important to train youth networks and align actions with government and community objectives.

The following four action points emerged from the discussions:

1. Develop projects to cultivate talents of youth, and also of women.
2. Share experiences and best practices between RCEs, including coordination, fundraising, and governance, using ICTs, social media, and the RCE portal.
3. Develop mentorships between older and newer RCEs.
4. Document how challenges have been turned into opportunities and solutions through capacity development initiatives.

Research and Development:

RCEs have the capacity to generate both appropriate and disruptive technologies. They can re-invent historically transformative and disruptive technologies for sustainable production systems using locally available knowledge and volunteer scholarship. Participants at the Nairobi conference deliberated issues of research methodology, development and implementation of appropriate and disruptive technologies by RCEs, and the research role of RCEs in traditional knowledge.

A key outcome of the discussion was in the formation of a research group to build on the work of traditional knowledge thematic discussions.

Participants identified the following four action points for joint implementation:

1. Develop an RCE guidebook on research methodologies, focusing on analysis and evaluation of research methodologies in terms of their applicability to various forms of community-based research.
2. Document RCE case studies on appropriate and disruptive technologies on the UNU portal to allow explore linkages between universities and communities on appropriate technology creation.
3. Develop a working paper on how to revitalize TK through community engagement.

Public-Private Partnerships:

In Nairobi, participants identified the following three action points to form the basis of enhancing public-private partnerships in RCE networks:

1. Identify willing organizations to form partnerships at local, regional, and international levels: RCEs will identify areas wherein they can become consultants in developing corporate social responsibility policies.

2. Create appropriate, functional, and formal structures enabling corporations to commit to RCEs: RCEs will increase their visibility and communicate their competitive advantage to corporations through seminars and workshops.

3. Establish a sustainable development fund to promote ESD: RCEs will create mutual public-private partnerships by sharing innovations on sustainability.

Governance and Coordination:

RCEs, as networked communities, apply governance and coordination mechanisms that are designed to capture decentralized decision-making processes and allow effective participation of all stakeholders. Trust, mutuality, transparency, accountability, inclusive participation, and equity are critical for an RCE to produce the maximum possible ESD value, greater than the sum of all stakeholders.

In Nairobi, participants discussed governance strategies suited to taking advantage of distributed ESD capacities and resources within RCEs. They shared processes on RCE coordination and reflected on challenges encountered.

The following four action points emerged from the discussions:

1. Make better use of the portal in sharing governance mechanisms that work in RCEs.

2. Share capacity-development processes on networked governance in RCEs.

3. Participate in appreciative evaluation and RCE assessment processes, and report on aspects of governance and coordination.

4. Conduct research on governance and coordination structures of RCEs.

Strategic and Operational Sessions

RCE Assessment and Evaluation:

RCEs undertake evaluation of their activities as learning processes for social change. Evaluation is also useful in strengthening individual RCEs and in taking stock of RCE contributions to the implementation of the UNDESD. Participants in Nairobi agreed to integrate evaluation as an assessment mechanism into their ongoing RCE activities.

The following action points emerged from the discussions:

1. Discover RCEs that would like to undertake evaluation and assessment processes according to the developed appreciative inquiry framework.
2. Collect case studies and different methodological approaches towards RCE evaluation and assessment.

Engagement with International SD/ESD Processes:

The global RCE network is involved in promoting international ESD processes, while the Global Action Programme on ESD presents further opportunities for RCEs to engage with international sustainability processes.

The following action points for enhancing RCE engagement with international SD/ESD processes emerged from the discussions:

1. Align RCE programmes with UN bodies, other international agencies, regional organizations, and national agencies.
2. Position RCEs in specific international and regional organizations: RCEs will encourage ministries or governments to sign documents aiming to integrate RCE work into national strategies.
3. Bring good cases to UN processes: RCEs will document their contributions to the international sustainability agenda.
4. Enhance communication and visibility: RCEs will continually share good cases via the RCE portal and monthly RCE Bulletin.
5. Extend partnership and networking: RCEs will invite international agencies to participate in conferences.

Fundraising:

Discussions on fundraising at the Nairobi Conference explored how to mobilisze financial resources to implement collaborative RCE flagship projects. Participants shared innovative fundraising strategies that have worked in their contexts, and deliberated activities and processes that could lead to future collaborative fundraising strategies.

The following action points emerged from the discussions:

1. Promote RCEs as a brand to attract funding. This requires RCEs to have clarity on their value-adding roles.
2. Develop cross-RCE partnerships to complement resources.
3. Lobby youth on fundraising and how to sustain funding.
4. Enhance public-private partnership through engagement in innovative and fundable action research projects.
5. Increase RCE visibility and outreach to other stakeholders with a view to creating strategic partnerships.

Communications and Outreach:

Communications and outreach are critical success factors for the activities of RCEs. Due to the diversity and complexity of the RCE global community, there are challenges in meeting the communications needs of all stakeholders. RCEs are encouraged to fully utilize the RCE portal and create websites that can be linked to the portal.

Discussions focused on how to address some of these challenges. Inviting the media to RCE events and undertaking joint publications, programs, and projects were agreed to be viable means of improving communications. Also, an RCE guidebook serving as a directory of RCEs was one idea to foster communications within and outside the RCE community.

The following three action points for improving communication in RCEs emerged from the discussions:

1. Encourage and adhere to feedback as a means of asserting communication by both the sender and receiver of information.
2. Bridge the gaps between knowledge, information, and awareness on ESD through communications and outreach.
3. Identify target audiences and select appropriate media and communication channels for effective communication.

Cross-Continental/Inter-RCE Collaboration:

With the expansion of the global RCE network, strong interest in and great potential for inter-RCE collaboration have been recognized. The session brought to light the large number of ongoing, mainly intra-continental, collaborative programmes between two different RCEs, and also the scope of opportunities that could be tapped for cross-continental collaborations. Participants discussed potential collaborative projects by identifying topics (e.g., water and traditional knowledge) and tools or enablers (e.g. journals, Skype/video meetings, webinars, social networking platforms, Google Maps, volunteers' exchanges, etc.). It was agreed that there will be a need for documentation of engagements for more coordinated collaboration and partnership in the future.

8th Global RCE Conference 2014

The 8th Global RCE Conference was attended by more than 250 participants including representatives from 43 RCEs worldwide and local ESD practitioners and experts from Kenya. The great success of the conference would not have been possible without their proactive participation and substantial contributions to the discussions.

Reflections on the important issues discussed at the conference were summarized by the Global RCE Service Centre, acknowledging the increasing role of formal and non-formal education in ESD and the transformative contributions of RCEs in the UNDESD and beyond. The continental, thematic, strategic, and operational discussions focused on important measures for RCEs to enhance the quality of their activities. The Policymakers' Roundtable Discussion highlighted the imperative need to engage policymakers in ESD and RCE actions while recognizing different appropriate models of engagement. RCE flagship projects were recognized as models of good practice, which hopefully will inspire others and influence ESD policies and actions. RCEs are expected to contribute to the implementation of the Global Action Programme on ESD post-2014, and conference participants were reminded of the road ahead, from Nairobi to Okayama for the 9th Global RCE Conference, then to Aichi-Nagoya for the UNESCO World Conference on ESD.

It is our sincere hope that this publication will serve as a useful reference and record of our strong commitment to working towards a sustainable future through ESD. Last but not least, we would like to express our deepest gratitude to RCE Greater Nairobi, the National Environment Management Authority (NEMA), and the United Nations Environment Programme (UNEP) for their great support and warm hospitality.

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