

Report of the PREE Regional Workshop “Training on the regional educational tools, PREE Review and Prospects”

Mbodiène, Senegal
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We sincerely thank all participants of the workshop for their contributions and proposals to enhance the regional educational tools and pursue the efforts to develop environmental education in the sub-region.

We thank the consultant Sophie Villeneuve for her contribution to the effective design of the Study Guide PREE and the facilitation of the training on the use of the regional educational tools.

The organization of such a workshop would not have been possible without the mobilization of the coordination team of PREE and IUCN staff in Guinea Bissau.



1 Context

1.1 Regional Program for the Conservation of Marine and Coastal Zone – PRCM

The regional program for the conservation of coastal and marine areas in West Africa (PRCM www.prcmarine.org) was established in 2001 in order to sustainably manage natural resources and biological and cultural diversity in order to secure the future of coastal societies of West Africa. His actions are grouped into three components: Integrated Coastal Zone, Conservation and Fisheries Management.

The second phase of the PRCM (2008-2011) is funded by the MAVA Foundation, the Dutch Cooperation and the Spanish Cooperation. The PRCM is implemented by IUCN, FIBA, WWF and Wetlands International in close collaboration with institutions and civil society organizations from 7 countries of the sub region.

1.2 Regional Environmental Education Program – PREE

Since 2008, the IUCN office in Guinea Bissau is responsible for the implementation of the Regional Environmental Education Program PREE in seven coastal countries of West Africa: Mauritania, Cape Verde, Senegal, Gambia, Guinea Bissau, Guinea and Sierra Leone.

1.2.1 General Objective of PREE

To bring national structures and community-based education and facilitation organizations up to the level of transmitting to young generations the elements of understanding, what is on stake regarding the conservation of West African coastal zone assets.

1.2.2 Expected results

Result 1: A network of competent educators and stakeholders participate in the development and implementation of a regional environmental education and communication strategy for the conservation of West African coastal and marine zone.

Result 2 : Education policies of the PRCM countries develop and integrate bio ecological and socio cultural values of coastal and marine zones, the risk that are related to their degradation and makes recommendations for their sustainable management.

Result 3: The capitalization of best practices and innovative experiences related to the conservation of natural and cultural coastal assets influence the behaviour of coastal communities.

1.2.3 Main results achieved by PREE since 2008

Result 1: Regional Network / Capacity Building / Training

- Participation of key stakeholders in relevant events: the World Conservation Congress in Barcelona in 2008, ERE World Congress in Montreal in 2009, the 4th Meeting of the World Ocean Network in 2010.
- Training sessions / exchange of experience: Regional Launching Workshop PREE in Bissau (December 2008), Regional Workshop in Bubaque (March 2010), Regional Workshop on integration in the curricula (January 2011), National EE training workshops in Mauritania, Gambia and Sierra Leone (Mars 2011).
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Result 2: Integrating environmental education into school curricula

- Development of a regional road map by PREE coordination (November 2009)

- Creating a Regional Working Group on Curriculum GTRC constituted of the responsible curriculum development of the Ministries of Education of the seven countries of PRCM area (July-September 2010)
- 1st GTRC meeting in Bissau (January 2011)
- Support of the integration of environmental education into school curricula in partnership with the Ministries of Education of Cape Verde, Guinea and Guinea Bissau.

Result 3: Capitalization of good practice / Support of EE local initiatives

- Development of educational tools: Book knowledge "Discovering the West African coast" (2011) and Teacher's Guide "Learning to become a citizen of the coast" (2012)
- Support of local initiatives in EE link with schools and local communities:
 - Mauritania / Ministry of Environment / Week of the Tree / 2008
 - Senegal / Océanium / Reforestation of mangroves / 2008
 - Guinea Bissau - Senegal / Océanium - AD - Palmeirinha / Exchange Visit on mangrove reforestation / 2008 – 2009
 - Guinea Bissau / IBAP - Palmeirinha / Teachers networks creation in the protected areas / 2009
 - Cape Verde / INDP / Social Communication Program of protection of sea turtles / 2009 - 2010 – 2011
 - Senegal / UNIVERE / Environmental education in schools Kayar and the Langue de Barbarie / 2009 - 2010 – 2011
 - Gambia / STAY GREEN FOUNDATION / awareness and environmental education in the PN Niomi / 2009 - 2010 – 2011
 - Guinea / ADEPAG / awareness and environmental education in the Benty river region focused on the protection of the manatee / 2009 - 2010 – 2011
 - Guinea Bissau / AD / Support to the environmental monitoring schools network EVA / 2010 – 2011
 - Guinea Bissau / Palmeirinha / awareness and environmental education in the natural park of Cufada lagoon / 2010 – 2011
 - Mauritania / CANPE / Support to Biodiversity Village in Nouakchott / 2010
 - Mauritania / ASSPCI / Environmental Education in the PN Diawling and PNBA / 2010 – 2011
 - Sierra Leone / Environmental Foundation for Africa / awareness and environmental education in Yawri Bay / 2010 – 2011
- Communication:
 - PREE semi-annual Newsletters (December 2009, July 2010, December 2010 and February 2012)
 - Development of PREE website

2 Regional training workshop on the use of regional educational tools, assessment and the future of the PREE

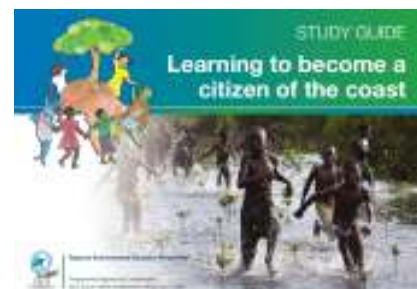
2.1 Context

Following the recommendations of previous meetings of PREE partners, educational tools were developed to facilitate understanding of the coastal zone and environmental challenges facing its people. To meet these expectations, the PREE has designed and published two complementary teaching tools:

1. **Knowledge handbook "Discovering the marine and coastal environment of West Africa" (translated into four languages and 10 000 copies published)** which is a reference document to enable adults and children to find simple and relevant information on the different natural habitats characteristic of the coastal zone, the forces governing the life of the coast (tides and currents), the specific flora and fauna of the coast and the consequences of human activities on biodiversity and natural resources.



2. **Study guide "Learning to become a citizen of the coast" (translated into three languages and 5 000 copies published)** which offers a wide range of discovery activity (investigations, games, experiments, projects for educational purposes, etc.) to help teachers and / or facilitators to impart knowledge, skills and know how to be children. The study guide is based on active teaching where the child is at the heart of the project, it offers activities for children to deepen their understanding of the following themes: coast, sustainable fisheries, shellfish, wetlands, protected species, marine protected areas, pollution, climate change, mining and oil and responsible tourism.



A training module for trainers has also been developed through by PREE coordination with the help of the consultant Sophie Villeneuve, who largely contributed in creating the study guide. The two educational tools and the training module for trainers should allow PREE partners to have all elements required to conduct educational activities with children and enable them to become aware of environmental issues while adopting responsible behavior and good practices.

Since the program began, the PREE has tried to develop a participatory approach in implementing the project as much as possible by consulting partners at sub regional meetings held in 2008, 2010 and 2011. Being close to the end of the current phase, this PREE partners meeting wished to assess the achievements and reflect on the prospects to continue efforts and answer expectations.

2.2 Objectives of the Workshop

The objectives of this regional workshop were to bring together key partners and members of the PREE to :

- Know better and appropriate the two PREE educational tools
- Be able to train teachers to use PREE educational tools

- Be able to advise teachers to build educational programs of EE in their schools
- Assess of the achievements of the first phase of the PREE with all partners
- Think about the sustainability of the dynamics through the creation of a network
- Set priorities and strategy for a second phase of the PREE

3 Workshop layout and main results

3.1 Workshop opening ceremony

The opening ceremony began with a speech of Mr. Racine Kane, Head of Senegal IUCN Program, who asked participants to observe a time of contemplation for the return of peace in the subregion. Mr. Racine Kane then stated that the PREE is one of the PRCM programs that had the greatest impact in particular because of the transverse dimension of environmental education and the multitude of activities and teaching tools developed. Finally Mr. Racine Kane stressed the need not to be confined to school but also to educate adults.



Mr Ahmed Senhoury, Director of the PRCM Coordination Unit, then officially opened the workshop praising the efforts of the PREE to work across all countries of the PRCM area by offering structuring activities and environmental education pilot actions. Mr Ahmed Senhoury reiterated the importance of continuing to support the integration of environmental education into curricula.

3.2 Introduction of participants

All participants were then asked to introduce themselves by mentioning their experiences in the field of environmental education, their links with the PREE and expectations of this training workshop. This roundtable was very rich and allowed everyone to become aware of the diversity of experiences and but also visions among PREE partners (see list of participants and contacts in Annex 1).

In particular, participants recommended PREE to:

- Develop experience with a larger scale
- Try to reach more people
- Provide educational tools for children
- Create links with the program "Green School" of UNESCO http://www.unesco.org/new/fr/dakar/about-this-office/single-view/news/greening_schools_in_west_africa/
- Create links and build on the GLOBE Program <http://globe.gov/> to find environmental education strategies to achieve children's behavior change.

3.3 Presentation of objectives and program of the workshop

The workshop objectives were briefly presented to the participants and a work program was approved (see Annex 2).

4.3 Technical session 1: Knowledge handbook and environmental issues of the coastal zone of West Africa

The first technical session was a presentation of the first PREE educational tool, the knowledge handbook, which aims to be a reference document for knowledge and understanding of the

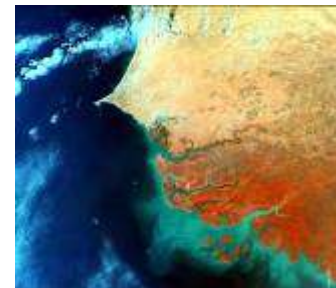
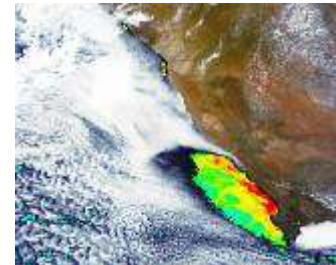
functioning of the coastal zone of West Africa and the main threats on the coastal environment. This session was moderated by Pierre Campredon.



The knowledge handbook presents the concept of **Ecoregion** which covers the countries of the Atlantic coast of West Africa. When creating the PRCM, the choice of countries was based on existing collaborations in the field of fisheries management as part of the CSRP (Sub-Regional Commission on Fisheries <http://spcsrp.org/>), on tight relationships between the countries often sharing populations of wildlife or natural resources (for species of fish performing migrations along the coast, sea turtles or water birds) but also human populations moving between the countries mainly for business purposes (case of migrant fishermen).

To understand the characteristics of the Ecological Region of West Africa, it is essential to know the forces involved:

- **Upwelling:** upwelling of cold water rich in nutrients that makes West Africa one of the richer regions in fish in the world.
- **Currents:** Ecoregion is located at the junction between the Canary Current (from the north) and the Guinea Current (from south), this feature partly explains the high biodiversity of the sub-region where one finds typically tropical species from the south (mangroves, flying fish ...) and more temperate zone species from the north (as the monk seal, for example). Another current parallel to the coast is created by the impacts of the waves and their echoes, and is called littoral drift (littoral drift plays an important role in erosion and sediment transport but also in the movement of marine organisms larvae, fish or turtles). All these currents may also play a central role in the transport and diffusion of pollution along the coastal zone.
- **Tides:** the lives of wild animals (fish, birds, mammals ...) and human populations along the coast is orchestrated by the tides that punctuate periods of foraging, rest or work (for humans).



For pollution (hydrocarbons or chemicals), the tides may also play an important role in the dissemination of pollutants and create impact in remote areas of the origin of pollution.



The knowledge handbook presents the different **wild habitats** of the coastal zone and their characteristics:

- Cliffs in the Cape Blanc in Mauritania
- The Gulf of Arguin and sandy beaches up to Dakar
- Estuaries cutting the coast from Saloum up to Sierra Leone
- The volcanic archipelago of Cape Verde which is characterized by a very high rate of endemism
- The deltaic Bijagos Archipelago, a sedimentary environment characterized by vast mudflats

The knowledge handbook presents the different **human activities** encountered along the coast and explains the impact they have on the environment, biodiversity and natural resources:

- Traditional fishing
- Artisanal commercial fishing
- Industrial fishing
- Tourism
- Agriculture (mangrove rice fields)
- Extractive industries (mining and oil)
- Infrastructure (such as the Port of Nouakchott)
- Urban planning and Pollution
- Climate Change



Questions / comments / recommendations of the participants

Contents of Knowledge handbook:

- The knowledge handbook presents well the value and richness of the coastal zone.
- The knowledge handbook is very useful for understanding the environmental problems and show people the changes in the environment to better understand the threats but also to define and write the information to be integrated into school curricula.
- The issue of natural disasters could have been addressed
- The technique used to grow rice on saline land could be described
- Rather than presenting the functioning of nature, we need educational tools that promote concrete actions to protect or restore the environment (improved stove, solar salt, mangrove reforestation ...).
- The knowledge handbook was positively assessed by the project 'Mundus Maris' <http://www.mundusmaris.org/> that decided to include it in his teaching kit.

Format of Knowledge handbook:

- Thanks for the quality of the document and for the fact that it has been translated into 4 languages of PRCM zone (French, English, Portuguese and Arabic).
- The "landscape/horizontal" format of the knowledge handbook is not usual for educational materials and teachers are more familiar with the "portrait/vertical" format.
- The pictures that illustrate the knowledge handbook are very pretty but they are not sufficiently scary; pictures that show problems are missing.
- For Mauritania, the cover picture creates some problems in terms of ownership because it does not really fit with the local context. Some people would have preferred an underwater photography that would better represent the fragility of marine life. The designers wanted the cover picture to illustrate as much as possible the relationship between nature and humans (especially children).

3.2 Technical session 2: Presentation of PREE educational tools and functioning of the Study Guide

The PREE Educational tools and their complementarity were presented by Sophie Villeneuve (consultant hired to design the study guide and training).

Environmental education is conceived as an experience of awakening, initiation, protection, transfer,

training, diversity, openness, security, resources, knowledge and conservation. It is therefore an educational experience, collective, preventive, cultural, civic, and responsible.

The training document that goes with the PREE teaching tools (knowledge handbook and study guide) aims to:

- Develop and motivate the curiosity of different actors for the use of these tools;
- Introduce environmental education learning tools of PRCM (their construction and operation, the key elements, innovative ideas, etc.).
- Provide input for better understanding and ownership of pedagogy and activities of the Study Guide.
- Supporting trainers of education stakeholders in the preparation of their training (the Training document is useful for creating training);
- Incentive ownership of the education stakeholders to develop environmental education efficient and evolutionary networks.

Three educational tools are available for environmental education stakeholders:

- The Knowledge handbook "Discovering the coastal and marine environment in West Africa": theoretical information on the environment of the West African coast for the preparation of sessions of environmental education, aimed at teachers / facilitators and participants.
- The Study Guide "Learning to become a citizen of the coast" elements needed to organize in the classroom and field, different activities of environmental education. It contains guidance and teaching advice to use the ten factsheets for teachers / facilitators and children. It turns into action some theoretical knowledge handbook (complementarity).
- The Training document "to use the Study Guide" explaining how the Study Guide works, the pedagogy used, by putting the participants in action and discussing the concepts to prepare a training. This document goes with several slides "PowerPoint" (given to participants in electronic format CD). It is made to facilitate the use of the two previous tools (such as a Manual). The training document is in Annex 2 of this Report.

The PREE study guide offers education professionals:

- A variety of themes and activities.
- Active teaching.
- A playful approach.

The objectives of the Study Guide are:

- Help the child make the connection between the factors contributing or not to a better environment;
- Educate about fragility;
- Raise awareness about the causes and consequences;
- Participate in improvement;
- Encourage participation in activities and initiatives of mitigation and adaptation;
- Reflect on the risks and benefits;
- Improve understanding;
- Know the roles of each stakeholders in nature conservation and resource management;
- Learn to act for solidarity with future generations.–

The study guide is composed of:

- An introduction that represents the link between all the thematic sheets. It includes the objectives, the presentation of the themes, the structure of each sheet, the presentation of the tools and educational advice to organize and facilitate activities with children. This introduction is essential for the implementation of each sheet.
- Ten thematic sheets for addressing the major environmental issues specific to the West African coast:
 - The coastline: "A fragile, prized treasure" / Character invited: Wore (the pelican)
 - Sustainable fishing: "Fish for Tomorrow" / Character invited: Azul (the fish)
 - Shellfish: "From the plate to necklace" / Character invited: Luana (the shell)
 - Wetlands: "Water is life!" / Character invited: Wata (water drop)
 - Protected species: "Ambassadors of Biodiversity" / Character invited: Foutou (the manatee)
 - Marine Protected Areas: "Marvellous, precious areas" / Character invited: Doudou (the dolphin)
 - Pollution: "Take care of your planet!" / Character invited: Zazou (garbage bag)
 - Climate change: "Things are hotting up!" / Character invited: Mr Sol (the sun)
 - Mining and oil, "The Gold Rush" / Character invited: Minégasse (the drop of oil)
 - Tourism: "Here comes a visitor!" / Character invited: Emilia (the tourist)
- The transversal characters (Ms. Tarta, the teacher, and two children Nina and Abdou) and the learning tree for visualizing and materializing the acquisition of skills by children throughout the environmental education program.
- An educational tool for children, "my environmental sheet" that the child can reproduce in his notebook and then keep to transcribe his findings and what he learned on each theme.

Following the presentation, a discussion focused on these points:

Questions / comments / recommendations of the participants

Contents of Study Guide:

- The Study Guide offers many opportunities to do good outdoor activities.
- These tools have very good quality and are highly motivating and exciting.
- These tools are very useful to guide the teacher in their EE sessions.
- The character evolution in the learning tree is comparable to using a ladder to materialize the development of students (approach already used in the Gambia).

Suggestions to accompany the Study Guide:

- Badges could be made with the "characters" for role playing (you can encourage children to play a role in presenting and defending his character).
- One could make posters with pictures and characters of each theme.
- The training document should be edited.
- It is also relevant to have an educational tool for children.

How to value the Study Guide?

- We must find an effective way to share and disseminate these tools within the network.
- The partners should make proposals for the use of tools at the local level; the PREE should centralize and capitalize on the experiences of each partner.
- These educational tools are well timed for Cape Verde as currently undergoing curriculum revision (skills-based approach, cross-disciplinary approaches and in all subjects).

Place of EE in schools:

- In the Francophone countries, teachers must follow a set program with the inspectors and their superiors. Finding room for EE sessions?
- How to integrate EE into the schedule?– Transversality is an answer but we must give room to the EE in the schedules (especially for activities outside the classroom).

- How to adapt to the level and child psychology?
- How to deal with more than 80 students?
- How to put into practice the transversality ? It is possible to do a geography lesson with a strong environmental dominance.
- How to manage the issue of content compliance? How an inspector may approve and confirm the specific approach to EE? => It is necessary that the environment be integrated into curricula.
- The integration of EE depends on the monthly program and schedule weekly or daily.
- To integrate EE into curricula, INRAP (National Institute for Pedagogical Action, Ministry of Education of Guinea) proceeded in two steps:
 - 1 / annotated reading of the curriculum to identify the insertion points
 - 2 / Identify content to be inserted
- How to integrate these aspects into the programs? One option is to encourage teachers to introduce content related to the environment in the geography or biology class. We must go slowly: it takes time to build a curriculum and then it gets hard to change afterwards.
- The environment must be introduced as an "infusion" into the curricula.

3.3 Technical session 3: active pedagogy - "Learning by doing"

To further explore the PREE educational tools, a brief presentation on active pedagogy has been done by Sophie Villeneuve before starting a debate and a time for sharing experiences among participants of the workshop.

Active pedagogy is based on the following principles:

- ✓ Learn by doing
- ✓ The child at the heart of the project
- ✓ The person: its achievements and skills
- ✓ Learning Relationship between the child and the teacher / facilitator
- ✓ Translation of knowledge into behavior
- ✓ Active learning in everyday life
- ✓ Projects to implement and take action
- ✓ Development of autonomy of the child
- ✓ Taking responsibility by the child
- ✓ Creativity



Essential elements of active pedagogy are:

- Perform realistic situations to allow the child to transfer the information to his own life
- Be original in learning supports to promote the use of all senses (especially visual) allowing rapid integration of information
- Use challenging tools to be more than just information transfer. They activate and stimulate the curiosity of all participants (the study guide, environmental sheet for the child ...)
- Create the opportunity to have fun to help children go away emotional and conflicting contexts (related to personal



- circumstances). Make a game, it's something important to do (learn) without giving any importance!
- Working and thinking in groups to share each other's strengths so a mutually beneficial and lead to greater involvement in learning
 - Build and participate in projects to get involved and learn by doing, transform skills into action and become agents of change
 - Improve the relationship teacher / child by the free expression of all. The teacher / facilitator should act as a mediator and facilitator
 - Establish assessment criteria collectively to define learning tags with children and enable them to assess themselves
 - Develop membership to create cohesion, the taste of collective action



Some examples for environmental education and PREE tools proposals:

- The characters: the children and the teacher / trainer associate themselves (Ms. Tarta, Nina and Abdou). They are like tags and are found throughout the Study Guide (thread).
- The learning tree: it offers the possibility of a collective and individual assessment of knowledge, life skills and expertise.
- Challenging tools: the knowledge handbook, the study guide and environmental sheet for the child. They are tools evolutive and adaptable to each reality
- The proposed activities: they are based on collective work and free expression of all. The teacher / facilitator should adopt the role of facilitator and coach. The wide range of activities can be adapted to each reality. The activities are all easily achievable.
- Projects at school or at home: they allow a high participation of children. They can serve as an introduction, a thread or conclusion of a theme. They allow children to acquire gestures and practical know-how. These are opportunities of change.

After the presentation, a discussion focused on the following:

Questions / comments / recommendations of the participants

- Important to make the children speak and to increase communication between students
- Role playing is a great tool for active pedagogy
- We are facing resistance to change: it is a challenge to change attitudes, to make active pedagogy penetrate in schools, to get the teacher and pupils out of school.
- We have to get out of the school environment
- One can work directly with communities in adapting to our own culture. This will facilitate communication and behavior change.
- Within PREE network, there is a wide range of stakeholders. So there will be a diversity in the use of regional educational tools

3.4 Technical Session 4: Construction and use of PREE study guide

To enable workshop participants to better appropriate the Study Guide, a presentation of the construction scheme and how to use the thematic sheets was made by Sophie Villeneuve.

The 10 topics covered by a thematic sheet have been recalled. Each Factsheet is built using the same architecture:

STRUCTURE D'UNE FICHE THÉMATIQUE

1 Titre et sujet - « Pourquoi ce titre ? » : *signification du titre et avant-goût du sujet*

Section : information pour l'enseignant/animateur

2 De quoi parlons-nous ? (*sujet, pourquoi ?, évolutions, solutions*)
Objectifs pédagogiques (*connaissances, savoir-faire, savoir-être*)

Section : Notre thème, notre invité

3 Histoire de l'invité (le personnage associé au thème)
Exercice de compréhension

Section : C'est quoi ?

4 Association de définitions

Section : Ce que je connais ? Questions, réflexions, réponses

5 Activité « Découverte » : *activité pédagogique pour la découverte du thème*
6 Recherche : nous enquêtons ! 1 : *recherche active d'informations sur le sujet*
Activité « Exploration » : *activité pédagogique d'approfondissement*
Recherche : nous enquêtons ! 2 : *recherche active d'informations sur le sujet*

Section : Des infos

7 Bougeons un peu ! : *activité pédagogique éducative, sportive, artistique, etc.*

8 Activité pratique : *activité d'application des connaissances*

9 Des infos près de moi, j'enquête ! : *jeu de rôles d'enquêteurs*

10 Au jeu ! : *activité ludique*

Section : Action

11 Action 1 : *activité pédagogique variée*

12 Action 2 : *activité pédagogique variée*

Section : Et chez moi ?

13 Discussion de groupe pour réfléchir aux comportements à adopter

Récapitulons

14 Questions Quiz : *évaluation des connaissances acquises et évolution de l'invité sur l'arbre d'apprentissage*

Les projets

15 Proposition de projets : *projets réalisables en classe ou à la maison*

***Outil pédagogique : « Ma fiche environnementale sur le thème... » - A réaliser avec les enfants pour chaque thème.**

Note - le terme « activités » regroupe tous les types d'activités d'apprentissage proposées : scientifiques, expérimentales, artistiques, sportives, coopératives, compétitives, intellectuelles, scolaires, sensorielles, etc.

General Information on the topic sheets:

- The cover page can be used to introduce the topic and generate interest and curiosity of children
- The activities of a sheet have no established order
- The characters, text bubbles and icons provide important information for the preparation and implementation of activities
- The instructions for carrying out the activities are explained in the blue rectangles
- The "For the teacher / trainer" provides guidelines for the implementation of the activity and theoretical information needed to better control specific topics.
- General guidance for the implementation and facilitation activities are grouped in the introduction
- Each topic sheet should allow to make the guest character climb in the learning tree, and students must complete their "environmental sheet"

In the "Training Document" (see Annex 3), different types of activities are detailed in four ways:

- Presentation of the activity
- How to approach, adapt and animate the activity
- Use of activity in training (for teachers / facilitators or trainers)

- Links with other tools or cross tracks with other learning disciplines

After the presentation, a discussion focused on the following:

Questions / comments / recommendations of the participants

Study Guide:

- For teachers to take ownership of these worksheets, it is important that they are close to existing tools used by the Ministry of Education. For example in Guinea, worksheets are based on five steps to which teachers are used to
- These educational tools are very important for training new teachers. We face problems of education quality; it is a crisis in education. The teacher entry-level is too low.
- This study guide is suitable for teachers. We should design another for children.
- This guide is timely to strengthen teacher training. Environmental education is helpful to motivate and mobilize children and teachers (example: reforestation of mangrove and exchange visits)
- These educational tools should be presented and adopted by the Ministry of Education.
- The PREE educational tools may be useful to improve all educational materials developed by the partners.
- It is necessary to share the products / tools of each partner.
- It is possible that users feel apprehensive from the study guide: 3 types of feelings may appear =>
 - 1 / wonder because the guide is pretty
 - 2 / then we might get scared and think it's going to be complicated
 - 3 / deepening will be reassured
- To evaluate (quiz questions), it is not sufficient to answer the questions but instead the teacher should try to assess behavior changes
- There are opportunities to publish the tools with other funding sources including with mining companies.
- We should collect all contributions to improve the tool in a future edition.

EE in schools:

- Getting out of class for an outside activity may cause difficulty in some contexts.
- We should think schools differently. We should encourage the construction of schools with a screening room or a resource room (with the natural history of the country for example).
- We face four major challenges:
 - 1 / Production and legalization of tools specific to each country by the Ministries of Education
 - 2 / Building the capacity of planners, teachers and students
 - 3 / How to mobilize resources to fund development of environmental education
 - 4 / Sustaining the approach of the EA in the education system
- Big problem: very low level of teachers, lack of training

3.5 Technical Session 5: Scenario of educational activities inside the classroom

To become familiar with the study guide, the workshop participants were asked to test several learning activities that teachers / facilitators can do in the classroom.

- a) Reading and understanding exercise of the history of presentation of the character called "Wore, the young pelican to the discovery of the coast" (page 22 of the study guide)
- b) Matching game of definitions on the coast (page 23 of the study guide)
- c) Discovery activity on the fishing / combination of images and types of fishing (pages 36 and 37 Curriculum Guide)



Questions / comments / recommendations of the participants

- To facilitate the implementation of these activities, the ideal would be to have supports of animation. These facilitation supports could be combined in a Training Package as a kit (at least in computer format)

3.6 Technical Session 6: Scenario of educational activities outdoor



To become familiar with the study guide, the workshop participants were invited to test the implementation of an outdoor activity. In order to encourage children to leave the classroom to go, observe and explore their environment, the study guide offers for each topic several investigation activities. To better understand these investigation activities, participants were divided into two groups: one group was responsible for investigating on fisheries (pages 37 and 39 teacher's guide) and the other group on pollution (pages 104 and 107 of the guide). Armed with the questions proposed in the study guide, participants went outside to look at reality, meet people and try to find answers to their questions.



After over an hour of field survey, participants returned to the room and presented answers found for each question. This survey is designed to make children active in their search for information and push them to ask more questions.

After this simulation, participants discussed the following items:

Questions / comments / recommendations of the participants

- Before starting the investigation, the group (children + teachers / facilitators) can select a few questions to fit the context. The group may also decide to add other questions.
- For the investigation to be successful: it is important that the teacher / organizer has well-prepared the activity. The teacher / facilitator should go and meet resources people before children do come asking questions.
- How about when you have a very important group of children? For example in the case of one teacher for 100 or 120 students

- Make several groups
- Empowering students to make inquiries outside of the school and organize a restitution of their results in the next sessions of EE
- Participants found that such activity is very important. It is essential to do activities outside the classroom for the children to confront the reality

3.7 Technical Session 7: Preparing and structuring an EE program in a school

An introductory presentation was directed by Sophie Villeneuve before the participants meet in groups to consider how to develop an EE program of in a school based on their background and experience.

A program of environmental education is:

- Prepare and organize themselves to meet the expectations of schools and those of teachers / facilitators and children;
- Use the Study Guide that goes with the programs established by ministers
- Establish the different lines of thought that will make a selection of activities for the program;
- Reflect on the organization of environmental education sessions for the class and the school;
- Question the understanding, adherence and application of active pedagogy in the preparation, adaptation and facilitation of the different sessions.
- Rely on environmental action projects to address local problems
- Encourage the establishment of youth environmental clubs

Exploring the working groups:

- How to choose the theme?
- What activities in the theme?
- What is the frequency of sessions?
- What are the objectives of the class?
- What themes choose or prefer?
- What rhythm to adopt for EE sessions?
- How to generate interest students?
- How to find a balance between classroom sessions and outdoor sessions?
- How to implement the EE learning through projects in school?
- How to foster links and exchanges on environment between the different classes / levels?
- What advice would you give to teachers?
- What advice would you give to school directors?

Restitution of the working groups:

Group / context	Proposals for structuring an EE program in a school
Group 1 : School in a big city (capital)	Priority theme = pollution Educational goals = To find solutions to pollution problems and the different types of waste (industrial waste, domestic waste, air pollution, water pollution ...) ✓ Start with a diagnostic session on the field made by children ✓ Rhythm = 1 session / week

	<ul style="list-style-type: none"> ✓ How to generate interest? <ul style="list-style-type: none"> ✓ Show the concrete impact of pollution on health ✓ Use supports animation (such as the Study Guide) ✓ Call on resource persons ✓ Alternate field trips and times of exploitation and deepening of the information in class (to ensure a balance) ✓ Try to diversify the activities <ul style="list-style-type: none"> ✓ Role Play ✓ Presentation ✓ Theatre ✓ Meetings and exchanges between classes
<p>Group 2 : School in a small town by the coastline</p>	<ol style="list-style-type: none"> 1. Make a diagnosis with children to select priority issues: this could be pollution 2. Foresee observation of reality 3. Classroom activities can be done during the course of social and environmental sciences and health classes 4. Outdoor activities can be done on weekends 5. Organize practical activities such as cleaning a site
<p>Group 3 : School in an isolated village by the coastline</p>	<p>Choice of a large village, a school that has direct links with the natural environment</p> <p><u>Choice of topic:</u> At a meeting with parents, teachers and students have identified the main problems related to the environment around the village (diagnostic phase). The approach is project-based teaching: in the case studied (Varela), the main theme is fishing.</p> <p><u>EE planning activities in the school:</u> Teachers with no particular teacher or "scientific" training but familiar to the area: training is organized on the basis of a national expert on the subject. The rhythm of EE sessions can be discussed within the Study Commissions organized within each region by the Ministry of Education, which gather teachers every 15 days. We can replicate this form of organization / coordination within the school to determine the programming of EE. The rhythm of activity depends on the type of project: a garden requires daily monitoring, mangrove reforestation is done in July-August, the monitoring of fishing is based on fishing trips etc.</p> <p><u>How to generate interest?</u> Creating interest of students ranging from first contact with the ground realities, in the form of investigation with professionals such as fishermen, fish processors, resource persons or parents. Starting from a field visit, we may do activities in class during 1 or 2 months: watching movies, theater, etc. wall newspaper. But it always starts with the field and then go to work in class.</p> <p><u>How to encourage exchanges between classes?</u> The division between classes is encouraged by the exchange visits, nature camps, conferences, study visits. Exchanges between teachers are also needed to share experience, learning new tools like the knowledge</p>

	<p>handbook, encyclopedias.</p> <p>The role of school directors is important to facilitate the training of teachers, to organize the planning, preparation of visits. They must be open to facilitate field trips, while ensuring that they are not only nature walks</p>
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After group work restitution, a discussion took place on how to move from a classical pedagogy (transmission) to an active pedagogy best suited to environmental education. This is to encourage a pedagogy from the classroom to the outside, then from the outside to the classroom. It should be practical and concrete; rely on reality and encourage children to observe, interpret and reflect on their immediate environment.

3.8 Technical Session 8: Scenario of educational activities inside

To become familiar with the contents of the study guide, the workshop participants were asked to test several learning activities that teachers / facilitators can perform indoors.

a) Wetlands at your service (pages 65 and 66 Study Guide)

Involve different types of wetlands with the services they provide

- a. Through discussion, children will have to list all types of wetlands they know (river, source, mangrove swamps, shallow, lake, pond, ground water, sea ...)
- b. The children then list all services provided by wetlands (drinking water, fisheries, agriculture, hunting, recreation, transport, reservoir of biodiversity, cultural ...)
- c. As a group, children associate types of wetlands and services provided and reflect on the importance and fragility of wetlands

b) Reading the landscape (137 page teacher's guide)

Landscape reading "100 years ago, today, 100 years after."
Interesting activity to make children (and adults) reflect on changes in the environment and development options



3.9 Technical Session 9: Organize a training

An introductory presentation was done by Sophie Villeneuve before the participants meet in groups to think about how to prepare and conduct training of teachers / facilitators or trainers in environmental education.

"Training is accompanying"

The training objectives are:

- ✓ Discover the Study Guide (and other tools) and learn to use and exploit its forms and activities as well as its entertaining and educational tool
- ✓ Understand and learn to implement active pedagogy
- ✓ Be able to set up an environmental education program at his school
- ✓ Be able to supply information environmental education through training times

Motivating training is a well thought training

What is the context of training?

- The Location (reality): the building, spaces available nearby, the characteristics of the region
- Activities nearby related to the theme
- Materials available (tables, chairs, small items of manual activity, play equipment, etc..)
- Budget

- Expected time

What is the educational material available ? :

- The Study Guide
- The Knowledge Handbook
- The Training Document
- PowerPoint presentation documents
- All other relevant documents

Who are the participants? :

- Training for teachers / facilitators or for future trainers of teacher / facilitators
- Expectations
- Experience in environmental education
- The number of participants
- Knowledge of active pedagogy

Who is the trainer? Who are the trainers? :

Experience in training
 Experience in environmental education
 Practical experiences to provide additional information
 Knowledge and application of active pedagogy
 The objectives

Reflection guidelines for the working groups:

- What audience?
- How should we train teachers?
- How should we train the trainers?
- What organization should we adopt for the training?
- Where should we organize the training?
- Who can conduct the training?
- What technical means or materials are needed?
- How to ensure that training is both theoretical and practical?
- How to assess the impact of training?
- How to support and monitor the beneficiaries of the training?
- How to multiply the training?



Restitution of the working groups:

Group / context	Proposals to set up training in EE
English speaking group	For example a group of 24 teachers Training workshop of 5 days Accommodation in a small coastal village near two MPA Hiring a trainer in EE Use of audiovisual tools and visual Using a comprehensive training kit (PREE + RAMSAR) Using a laptop + projector <ul style="list-style-type: none"> ➤ Training Sessions in classroom ➤ Screening of video or audio ➤ Interactive session on the ground

	<ul style="list-style-type: none"> ➤ Produce report ➤ Assessment <p>Maintain contact with schools and teachers</p> <p>Multiplication through training of trainers</p>
<p>French speaking group</p>	<p>Target audience: school directors, inspectors and educational advisers</p> <p>Training of trainers in three Steps:</p> <p>1 / Planning and Preparation Phase</p> <p>2 / Implementation</p> <p>3 / Monitoring and assessment</p> <p>Overall objective of the training: introduction to the practice of EE</p> <p>Specific objectives: training in the use of tools</p> <p>How to train the trainers?</p> <ul style="list-style-type: none"> • Develop and / or look for training tools • Organize training: exchange, information sharing, production collegiate media implementation <p>Trainers =Inspectors and trainers experts in EE</p> <p>Materials needed = Wall Brackets, movies / DVD, Slideshows, video</p> <p>Pedagogy alternating = field trip alternating with classroom sessions -> Return and then pooling</p> <p>Monitoring and evaluation = evaluation of technical training to ensure the acquisition of content. Need to establish a monitoring and evaluation scheme.</p>
<p>Portuguese speaking group</p>	<p>Target audience: teachers of elementary education on environmental issues related to the area (tourism & fishing)</p> <p>Materials: school manual, Knowledge Handbook and Study Guide, furniture (blackboards, chairs and tables etc.).</p> <p>Training teachers in groups of 20 during 4 weeks for each theme. Each week: two days of theoretical training (Friday & Saturday) taking advantage of the Study Commissions. The days from Monday through Thursday are time of observation, evaluation and monitoring by the instructor during class</p> <p>Budget: Cost of training materials, instructor fees and travel</p> <p>Facilitation: provided by a person who has the technical and scientific knowledge but also knows the realities of the site</p> <p>Assessment: observation of student behavior in class, their level of participation in and outside the classroom</p> <p>Multiply: selecting the best among the 20 teachers train and build capacity so they can train other teachers.</p>

After refunds working groups, participants discussed the following items:

Questions / comments / recommendations of the participants
<ul style="list-style-type: none"> – How to ensure that teacher training will have an impact? – How do the beneficiaries of the training apply what they learned? – What monitoring strategy should we adopt? – How to deal with a diverse audience (inspectors, school directors and education counselors)? – We must be careful to take into account the different visions, approaches and sensibilities

- of state institutions and NGOs.
- Everyone must build training depending on its context.
 - It is important and necessary that inspectors and school directors know the approaches and content specific to the EE to be able to support, provide advice and also assess the teachers.

3.10 Technical Session 10: Review of the first phase of the PREE (2008-2012)

To help make a balance of the first phase of the PREE, a framework of impact and outcome indicators was presented before launching a discussion among stakeholders of the program. This session was moderated by Frederic Airaud.

Leading actions of PREE during the first phase:

- Bring together professionals of EE around a shared vision
- Strengthen the capacities of actors at national and regional levels
- Support local EE initiatives in the 7 countries of PRCM zone
- Produce regional educational tools
- Support the integration of EE in the curricula

INDICATORS	Status indicator at the end of the 1st Phase
Main objective: Put national structures and local organizations of education and community outreach in condition to pass on to younger generations the elements of understanding of issues related to heritage conservation in the coastal zone of West Africa.	
Impact indicator 1: The sub region has a network of contacts identified and relevant knowledge management experiences in the sub-region, able to conduct analyzes, interventions and training of teachers and facilitators in EE	<u>Yet informal network of experts and professionals in environmental education in coastal countries of West Africa</u> 1 / Ministry of Education - Cape Verde 2 / REA - Cape Verde 3 / Ministry of Education - Mauritania 4 / CANPE - Mauritania 5 / Ministry of Education - Senegal 6 / UNIVERE - Senegal 7 / NEA - Gambia 8 / SGF - Gambia 9 / INDE - Ministry of Education - Guinea Bissau 10 / AD EVA Network - Guinea Bissau 11 / Palmeirinha - Guinea Bissau 12 / INRAP - Ministry of Education - Guinea 13 / Guinea Ecology - Guinea 14 / EPA-SL - Sierra Leone 15 / EFA - Sierra Leone

<p>Impact indicator 2: At least ten institutional organizations and civil society include in their action plans and implement EE activities after the project</p>	<p>At least 13 public institutions and civil society organizations that include measures for EE in their action plans: 1 / INDP - Cape Verde 2 / REA - Cape Verde 3 / CANPE - Mauritania 4 / ASSPCI - Mauritania 5 / UNIVERE - Senegal 6 / AD - Guinea Bissau 7 / NEA - Gambia 8 / SGF - Gambia 9 / Palmeirinha - Guinea Bissau 10 / INDE - Guinea Bissau 11 / Guinea Ecology - Guinea 12 / ADEPAG - Guinea 13 / INRAP - Guinea 14 / EFA - Sierra Leone 15 / EPA-SL - Sierra Leone</p>
<p>Impact indicator 3: At least five thousand miles and young households near conservation sites regularly receive information on issues related to integrated management of coastal and marine</p>	<p>Number of beneficiaries of micro-projects by Country: Guinea Bissau - AD Network EVA = 531 students + 30 teachers Guinea Bissau - Palmeirinha = 1530 students and 1030 teachers + 37 trained adults Mauritania - ASSPCI = 47 students Guinea - ADEPAG = 372 students + 450 adults Sierra Leone - EFA = 100 students + 10 teachers Gambia - FMS = 600 students + 21 teachers Cape Verde - INDP = 1250 students + 70 trained adult Senegal - UNIVERE = 1749 students + 71 teachers trained TOTAL PUPILS = 6197 students TOTAL ADULTS = 1719 adults</p>
<p>Impact indicator 4: At least three countries have integrated into school curricula and environmental risks associated with the assets coastal and marine areas</p>	<p>Partnerships have been formalized with three Ministries of Education to support and / or finalize the integration of EE in the curricula: 1 / GUINEA BISSAU 2 / GUINEA 3 / CAPE VERDE</p>
<p>Result 1: A network of educators and relevant actors involved in the development and implementation of a regional strategy for education and communication for environmental conservation of coastal and marine area in West Africa</p>	
<p>Indicator 1. 1 A regional strategy is developed based on a needs analysis, implementation and followed in connection with a regional group of key personnel involved in education programs and conservation</p>	<p>Diagnosis and intervention proposal made at the regional level by Oumar Sy and Monique Trudel in 2007-2008 Network members PREE (hard core of 15 people from seven countries) met three times during the first phase: December 2008 in Bissau, Bubaque Bissau in March 2010 and in January 2011 and thus defined the strategy of PREE for intervention: - Build capacity of stakeholders and partners - Achieve a wide range of audiences young adults in formal and informal contexts - Enhance and centralize existing teaching tools and produce tools adapted to regional needs and realities of the sub-region - Convince policy makers to integrate EE into curricula - Support the integration of EE in the curricula - Improve communication between partners and experts from the sub-region to encourage the exchange of experiences and the pooling of resources</p>

<p>Indicator 1. 2 A series of educational tools is produced in four languages PRCM and used for community activities and interventions in schools</p>	<p>1st Regional Educational Tool: knowledge handbook 10,000 copies of the knowledge handbook were published and distributed in 2011 in seven countries PRCM in four languages: French, English, Portuguese and Arabic 2nd Regional Educational Tool: Study Guide Complementary tool to the specifications of knowledge published in three languages and distributed PRCM in 7 countries in 5000 copies during the first half of 2012</p>
<p>Indicator 1. 3 In each country, a group of field practitioners, NGO leaders, teachers and school teachers and trainers have been trained including the use of teaching tools</p>	<p><u>Number of teachers and leaders of NGOs trained on environmental issues, use of knowledge handbook, active pedagogy teaching and facilitation techniques and interpretation of the natural environment:</u> Mauritania = 33 teachers and leaders of NGOs Senegal = 71 teachers Guinea Bissau = 67 teachers and staff of AP Cape Verde = 24 trainers Gambia = 12 teachers Sierra Leone = 20 teachers and leaders of NGOs In 2012, the PREE organized a regional training of trainers in EE centered on the use of two educational tools. These trainers can leverage these courses in their respective countries during a possible second phase of the PREE</p>
<p>Result 2: The Public Policy Education PRCM countries evolve and integrate bio-ecological and socio-cultural values of coastal and marine areas, the risks associated with their degradation and recommendations for their sustainable management</p>	
<p>Indicator 2. 1 Analyzes of education systems in seven countries are conducted, identifying needs and opportunities to introduce into the curricula of aspects of coastal heritage and conservation</p>	<p>Work done in each country by members of the GTRC (PREE Regional Working Group on Curricula composed of responsible of curriculum development in the seven countries PRCM). These analyzes were presented and compared during the regional workshop on curricula in January 2011 in Bissau. Strategies to support the PREE process of integrating EE curricula in each country were defined in a participatory manner and approved by the GTRC.</p>
<p>Indicator 2. 2 Curricula are revised in at least three countries and incorporate aspects of coastal heritage and conservation of marine and coastal ecosystems</p>	<p>All countries in the sub-region are currently revising the curriculum. All countries PRCM showed willingness and interest to integrate officially EE into the curricula. Currently formal partnerships are engaged between the PREE and the Ministries of Education in Guinea Bissau, Guinea and Cape Verde Discussions are underway with Sierra Leone and Gambia. The political-institutional context of Mauritania and Senegal has not yet made possible to define the prospects for technical support of the integration of EE in the curricula</p>
<p>Indicator 2. 3 The parliamentary influence in at least three countries in curriculum review inclusive of elements on the heritage coast and conservation of marine and coastal ecosystems</p>	<p>In May 2010, Parliament of Guinea Bissau has adopted an Act revising the national education system to explicitly officialize the integration EE into curricula. In October 2011, the coordination of PREE took advantage of the meeting of MPs regional Environment network APPEL to make a plea for the integration of EE in the curricula. All members from the six countries pledged to try to convince parliaments and governments of the need to explicitly integrate EE in the curricula of their countries.</p>

<p>Indicator 2. 4 A joint statement or a memorandum of understanding commits the Ministries of Education of the seven countries in a planning process of integration steps in the curriculum of environmental education, and updating them in light of changing of environmental, social and economic</p>	<p>The Minister of Education of Guinea Bissau has assumed the role of "champion" of the EA at the sub-region level by sending letters to the other ministers of seven countries to ask them to meet and reflect on a common commitment to the EE and for sharing of experiences of each country.</p> <p>The Ministers of Education of the seven countries have responded positively and have planned to hold a meeting during the next PRCM Forum in Banjul (if financial PRCM permit because the PREE has no budget for this action political advocacy)</p> <p>Members of the GTRC have already begun to make proposals for a "Charter / Engagement" at the regional countries for EE</p>
<p>Result 3: The capitalization of good practices and innovative experiences in the conservation of natural and cultural heritage coastal influences the behavior of coastal communities</p>	
<p>Indicator 3. 1 Good practices and experiences of at least six sites in the region, with an educational value, are identified and are subject to production of documents used for visual and audiovisual EE</p>	<p>Regional Educational Library: All existing teaching tools have been centralized in Bissau, will be digitized and then distributed in the sub-region in the format of a CD and downloadable from the future website of PREE</p> <p>1st Regional Educational Tool: knowledge handbook: 10,000 copies of the Book of Knowledge was published and distributed in 2011 in seven countries PRCM in four languages: French, English, Portuguese and Arabic</p> <p>2nd Regional Educational Tool: Study Guide Complementary tool to the specifications of knowledge will be published in four languages and distributed PRCM in seven countries during the first half of 2012</p>
<p>Indicator 3. 2 The capitalization of good practices and experience sharing are promoted through at least ten visits between leaders and teachers and at least forty field trips and study tours for school children</p>	<p>Since 2008, the PREE supported the following exchange visits:</p> <ul style="list-style-type: none"> - Caravan of coastline in Senegal with UNIVERE - Visits to students and teachers of Guinea Bissau to Casamance to explore the mangrove reforestation programs - EVA schools nature camp with the students and teachers from almost all regions of Guinea Bissau and a delegation of Casamance <p>Despite the incentives to develop the PREE exchange visits between countries, partners tended to prefer to focus their efforts in their countries to more local levels</p>
<p>Indicator 3. 3 At least seven experiments local conservation or rehabilitation of the coastal zone are initiated or boosted through regular visits and involve school</p>	<p>The PREE has supported local initiatives EE and youth involvement in environmental conservation in each of the seven PRCM countries:</p> <ul style="list-style-type: none"> - CAPE VERDE: INDP = Protection Turtles on the islands of Sao Vicente, Santo Antao and Sao Nicolau - MAURITANIA: ASSPCI = playful and artistic awakening of children for Conservation of Biodiversity in Parks Banc d'Arguin and Diawling - SENEGAL: UNIVERE = Awareness, education and involvement of children in conservation actions in the coastal region of St. Louis and Kayar - GAMBIA: STAY GREEN FOUNDATION = Awareness, education and involvement of children in actions for wetland conservation and coastal PN Niumi - GUINEA BISSAU: AD - EVA = Network Capacity building of teachers, exchange visits between schools and micro-teaching projects implemented by the students (mangrove reforestation, improved stoves, solar salt, school gardens, nurseries fruit trees and local species ...) - GUINEA BISSAU: Palmeirinha = Training Teachers and Guards of NP Lagoons Cufada, micro teaching projects implemented by students (improved stoves, school garden, inventory of fauna and flora, fruit tree nurseries and local species ...), film and debate in the villages, edition of a Palmeirinha book with contributions from students and school teachers of the park. - GUINEA: ADEPAG = Awareness of students to the conservation of the manatee and its habitat

	- SIERRA LEONE: EFA = Revitalization of nature clubs in schools and development of teaching micro-projects in schools
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After this presentation, a discussion ensued on the following:

Questions / comments / recommendations of the participants

- Most participants highly congratulated the PREE coordination team for the quality and quantity of work done in recent years.
- Coordination of PREE congratulated the professionals and program partners for their personal commitment
- Partners and coordination of the PREE thanked the consultant hired to develop the study guide and training
- The partners would like to have the original project document to be able to assess themselves the PREE results
- School exchanges between Guinea Bissau and the Casamance continue in the field of environmental education
- The field projects need more follow-up by the coordination
- Need more feedback on the reports of field projects
- Exchanges of experience should be strengthened within the newsletter.
- An editorial board of the regional newsletter should be in place
- The PREE produced things that will last
- It is unfortunate that the Ministry of Education of Mauritania was not associated with the program from the start
- It is regrettable that the educational tools have not yet been distributed to all partners and EE stakeholders in the different countries. This causes problems regarding to their utility, ownership and valuation.
- In Guinea Bissau, the support of the PREE has
 - Improve the quality of teaching EE
 - Develop synergies between EVAs, the Ministry of Education, ANP and other partners
 - Extending the network of EVA
 - Strengthening the Palmeirinha NGO team
 - Strengthen networks of teachers in AP
 - Strengthen the EE capacity of teachers in the Natural Park of the Lagoons Cufada
- The PREE was able to achieve results in less than 3 years which is rare but, say the participants, a second phase is imperative to consolidate the gains.
- Participation in the PREE was a very rich experience
- How to assess capacity building whose partners have benefited?
- The PREE helped launch the Village of Biodiversity in Nouakchott who now has a full-time facilitator, helped influence many Mauritanian personalities and hosts over 30 local associations involved in the village of biodiversity
- The PREE helped us reinvigorate the work of EE in Guinea, it was like a breath of fresh air
- The PREE did not have the means to cover all countries but it could cover an area / model and then extend and multiply. We must develop models that could be replicated

3.11 Technical Session 11: Outlook of the second phase of the PREE

The session began with a presentation of the proposed elements decided during the regional workshop of the PREE in January 2011 that have already been developed and submitted for appreciation of potential funding partners (PRCM Phase 3, MAVA Foundation and ECOWAS). This session was moderated by Frederic Airaud and Pierre Campredon.

Overall objective of PREE Phase II:

Support institutions and education professionals in their ability to make young generations citizens aware of coastal issues and actors of sustainable development of coastal and marine zone of West Africa.

Result 1:

The Ministries of Education and their partners integrate environmental education into school curricula giving special importance to the coastal zone

- Support for curriculum integration process in each country according to their priorities and their approach by continuing the momentum in the 1st phase of the PREE
- Implementation of training modules and educational materials of common interest to the region in three languages
- Organizing training of trainers on the main themes and teaching materials associated
- Organization of a regional conference at the beginning and the end of the 2nd phase with the presence of Ministers of Education to promote the regional dynamics and expressing the political will of States

Result 2:

A reference and training pole in environmental education is functional and independent in each of the seven countries with a strong involvement of teachers, NGOs and PA managers

- Identification, implementation and support of a reference and training pole for partners on the basis of objective criteria, supported technically and financially through the Coordinating Unit of the PREE
- Organization of training, events and exchange visits at each pole of reference and training
- Creating partnerships and collaborations between the poles of reference and training and actions to conserve and sustainable management of resources involved in the same spaces
- Evaluation and capitalization of experiences of each point of reference and education services to feed the content and approaches of EE in the region

Result 3:

The Regional Network of Environmental Education on the coastal zone is formalized and plays a leading role in the animation and the spread of its objectives

- Support the regional network and national networks together to form around a shared and cooperative vision
- Support the national networks for their involvement in advocacy for the EE with the authorities and the international community
- Establishment of a monitoring system and flow of information on the activities of network members, the poles of references and issues related to environmental education
- A pooling of sub-regional experts able to conduct training and assist the integration of EE in the curricula

- Representation of members of the regional network at relevant national and international conferences
- Organization of communication activities for the general public about the value, the fragility and the need to conserve natural and cultural heritage linked to the coast as well as awareness of the impacts of climate change

After this presentation, a discussion ensued on the following:

Questions / comments / recommendations of the participants

- Need to think about strategies for co-fundings
- During the next phase, the educational tools should be systematically translated into four languages PRCM (therefore in Arabic)
- What is the difference between the poles of reference, the national networks and regional network?
- The training center of Pita (Futa Jallon) in Guinea could receive trainees. This center could become a regional training center in EE
- There are opportunities for funding from Arab funds (donors, foundations and benefactors) should not be overlooked.
- The 2nd phase will require more flexibility in decisions
- Each country should develop its program, its vision
- The meeting between the Ministers of Education will take place or not ?
- Why not propose the project to the BAD or the EU?
- The PREE could rely on the network of Francophone Mayors who are very active with elected officials and local authorities (International Association of Francophone Mayors)
- Should not we think about building centers to welcome training?
- We must build on what exists, there are mechanisms and institutions for training trainers and teachers
- We must share the project document of the second phase of the PREE with individual countries. Have it validated by the Ministries of Education who can submit to donors.
- Each country should build and submit an action plan based on the objectives of the regional program
- We must try to help coordinate the various institutions involved in the EA: Ministry of Education, Ministry of Environment, NGOs and international agencies like UNESCO.
- To get results on the integration of EE in the curricula, it is imperative to work with institutional partners. The result of running the regional network is more informal. The result related to reference and training pole is a good innovation
- Countries are at different stages. There are varying degrees of collaboration between initiatives in the field of EE conducted by the Ministries of Education and by civil society organizations.
- The second phase will also be involved in environmental communication in addition to environmental education. Communication affects all society and can help to change community attitudes. Even if the communication to the entire community requires substantial resources.
- PREE partners must feel responsible for the dissemination and use of educational tools.

3.12 Technical Session 12: Create a regional network for environmental education in West Africa

An introductory allowed to share with PREE partners proposals aim, objectives and activities of a regional network for environmental education. This session was moderated by Frederic Airaud and Pierre Campredon.

Purpose of Network

Develop environmental education and communication in PRCM countries - Mauritania, Cape Verde, Senegal, Gambia, Guinea Bissau, Guinea and Sierra Leone - to promote the conservation of coastal and marine the benefit of present and future.

Objectives of the Network

- Gather institutions, nongovernmental organizations and individuals interested in promoting education and communication on the coastal and marine environment in the PRCM countries
- Encourage young people to become citizens of the coast, aware of the issues and challenges related to the environment
- Contribute to awareness and mobilizing people on the need to maintain a healthy and productive coastal zone for the benefit of present and future generations, for their responsible involvement
- Involve and strengthen regional capacity to develop EE initiatives in countries of PRCM
- Advocate more effectively the cause of the EE in West Africa with governments and donors

Network activities

- ✓ Train in each country trainers to disseminate the tools and techniques of ES, including those that have been developed under the Network
- ✓ Provide training to national and regional level, especially among teachers and staff of protected areas or NGOs working in the field of EE, particularly members of the Network
- ✓ Supporting national integration of EE into school curricula
- ✓ Produce educational tools of common interest, disseminate and popularize their use
- ✓ Promote learning approaches and mutual exchange of experience
- ✓ Provide technical support to its members for the identification, design, research funding and implementation of EE projects
- ✓ Encourage member participation in relevant regional or international conferences
- ✓ Conduct advocacy for development of EE in general and on the coastal and marine area in particular
- ✓ Support the establishment of national network

After this presentation, a discussion took place among participants on the interest and relevance of a regional network for environmental education:

Questions / comments / recommendations of the participants

- There are problems of coordination at the national level. An actor should play a leadership role to animate each national network to enhance communication between partners active in the field of EE. We need a focal point for countries to ensure coordination of all activities at national level
- The PREE needs to have partners at local level, these could be responsible for the reference poles or officials at the Ministries of Education.

- For the regional network, we must not go too fast.
- The regional network should be built based on national networks.
- Concerning the responsible of a regional network, care must be taken to term limits (maximum one or two years).
- The regional network already exists at the informal level. Why build something new?
- The objective is to strengthen and expand the existing network with other partners active in the field of EE.
- Rather than focal points, it would be better to have national networks that operate on the basis of consensus.
- The Ministries of Education should take leadership to create and animate networks.
- To be meaningful, the network must meet the expectations of its members. We must consolidate the existing informal network, we could baptize him and give him time to build.
- The network already exists. It should continue to exist after a second phase of the PREE. We are a family.
- The network should have an office that will prepare documents for projects and seek funding.
- The second phase of the PREE will support the creation of national networks. Coordination of the PREE may make proposals, circulate them to members of the network and propose steps for the establishment and formalization of the network.

3.13 Meeting with Mr Ahmadou Makhtar Mbow - former DG of UNESCO

After completion of the work, the workshop participants have returned to Dakar to meet Mr Ahmadou Makhtar Mbow (former Director General of UNESCO from 1974 to 1987). The objective was to thank him for agreeing to be the author of the preface PREE Study Guide reflecting his interest in the efforts for environmental education in the coastal countries of the sub region.



With the help of the IUCN office in Senegal and in particular its Head of Mission, Mr. Racine Kane, participants of the Regional PREE Workshop have been received at the residence of Mr Amadou Makhtar Mbow in Dakar.

Racine Kane, Oumar Sy, Ahmed Senhoury and Frederic Airaud spoke on behalf of the sub regional network to present the diversity of PREE partners, the purpose of the program and its achievements but also offer Mr Ahmadou Makhtar Mbow copies of the Knowledge Handbook and Study Guide.

PREE network members took the opportunity to ask Mr Ahmadou Makhtar Mbow to become godfather to their network for environmental education. The latter gladly accepted and pledged to follow and defend the PREE.

Mr Ahmadou Makhtar Mbow then shared his concerns regarding the environment and his interest in

environmental education. He stated that he personally observed very early degradation of the environment and that this had led him to reflect on how best to counter this situation.

Mr Ahmadou Makhtar Mbow consider being part of a generation that took an early concern about the degradation of nature and is confident that future generations will succeed in meeting environmental challenges. It is in this context that environmental education makes sense insisting on the need to persevere in this task which is inherently time-consuming.



4 Conclusion

In conclusion of the work, the workshop participants have formulated and signed the following resolution:

Resolution for environmental education in coastal and marine in West Africa

Environmental education stakeholders representing educational institutions and NGOs and associations of PRCM countries gathered in Mbodiène, Senegal, from the 7th to 10th of May 2012 by the regional environmental education program PREE during a training module on the use of teaching aids for environmental education (knowledge handbook and study guide).

- Considering the important results of the PREE in the development of environmental education in the sub-region: building a network of actors in environmental education, teacher training and training of field workers, production of teaching aids, contribution to the integration of environmental education into the curricula of education systems in the sub-region,
- Anxious to see these results expand, consolidate and sustain themselves in formal and informal education systems of our countries,
- Learning from the experience of other environmental education programs in the sub-region that despite results have failed to sustain their achievements,
- Recommend that the PRCM and IUCN make every possible effort to mobilize significant funding for a second phase of the PREE,
- Engage the states in the sub-region to consider, in the development of their curricula, the integration of environmental education, including aspects related to the issue of sustainable coastal management,
- Ask the ministries of education and of environment an institutional and technical support in the formulation, funding research and implementation of the second phase of the PREE,
- Agree on the principle of formalizing a regional network of environmental education actors of coastal West African countries,
- Choose as godfather of their network, Mr Ahmadou Makhtar MBOW, former Director General of UNESCO.

ANNEX 1 : List of participants

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ANNEX 2 : Workshop program

REGIONAL ENVIRONMENTAL EDUCATION PROGRAM PREE / PRCM

Program of the PREE workshop 7th – 10th of May of 2012

Place : Laguna Beach Hôtel, Mbodiène (close to Mbour), Senegal

Monday 7th of May 2012		
Time	Program	Responsible
9am – 12am	Transport in bus from Dakar to Mbodiène	
12am – 2.30pm	Lunch	
2.30pm – 3pm	Workshop opening ceremony	Racine Kane Ahmed Senhoury Frederic Airaud
3pm – 3.30pm	Presentation of each participant	
3.30pm – 4pm	Presentation of program and objectives of the workshop	Frederic Airaud
4pm – 4.30pm	Coffee break	
6.30pm – 6pm	Presentation of the “Knowledge handbook” and of the main conservation challenges of the coastal zone of West Africa	Pierre Campredon
6pm	End of work	

Tuesday 8th of May 2012		
Time	Program	Responsible
9am – 9.30am	Presentation of the learning tools and functioning of the pedagogical guide	Sophie Villeneuve
9.30am – 10am	Questions / debate	Participants
10am – 10.30am	The active pedagogy	Sophie Villeneuve + Oumar Sy
10.30am – 11am	Questions / debate	Participants
11am – 11.30am	Coffee break	
11.30am – 1pm	Discovery of the pedagogical guide: How are built the thematic sheets? How to use it? + Questions / debate	Sophie Villeneuve + Frederic Airaud
1pm – 2.30pm	Lunch	
2.30pm – 4pm	Test of learning activity in the classroom	Sophie Villeneuve + Frederic Airaud
4pm – 4.30pm	Coffee break	
4.30pm – 6.30pm	Test of a learning activity in the field	Sophie Villeneuve + Frederic Airaud
6.30pm	End of work	

Wednesday 9th of May 2012		
Time	Program	Responsible
9am – 11am	How to prepare and build an environmental education program in a school? <ul style="list-style-type: none"> - Points to consider - Working group on 3 scenarios - Restitution of working groups 	Sophie Villeneuve + Oumar Sy + Participants
11am – 11.30am	Coffee break	
11.30am – 1pm	Test of learning activity in the classroom	Sophie Villeneuve + Frederic Airaud
1pm – 2.30pm	Lunch	
2.30pm – 3pm	Organize and conduct a training in environmental education	Frederic Airaud + Oumar Sy
3pm – 4pm	How to organize training in my country? <ul style="list-style-type: none"> - Working group / country (20 min) - Restitution (40 min) 	Participants
4pm – 4.30pm	Coffee break	
4.30pm – 5.30pm	Balance of the PREE 1st Phase	Frederic Airaud
5.30pm – 6.30pm	Questions / debate	Participants
6.30pm	End of work	

Thursday 10th of May 2012		
Time	Program	Responsible
9am – 10am	Outlook of the 2 nd Phase	Pierre Campredon
10am – 11am	Questions / debate	Participants
11am – 11.30am	Coffee break	
11.30am – 1pm	Creation of a regional environmental education network for the coastal and marine zone of West Africa <ul style="list-style-type: none"> - Reasons / advantages - How to create Operating ways	Pierre Campredon
1pm – 2.30pm	Lunch	
2.30pm – 4.30pm	Transport in bus from Mbodiène to Dakar	
5pm – 6pm	Meeting of the delegation PREE with Mr Ahmadou Makhtar Mbow (former DG of UNESCO)	

ANNEX 3 : Document training in the use of the Study Guide

Regional Environmental Education Program PREE

Training document

To use the "Study Guide: Learning to become a citizen of the coast," the creation of program of environmental education and training



*Written by Sophie Villeneuve
2012*

Introduction

The regional program of Environmental Education (PREE) PRCM aims "to put the national actors and local education and community outreach in condition to pass on to younger generations the elements of the understanding of environmental issues West African coast".

Two education and facilitation tools were created as part of this program: the Knowledge Handbook "Discovering the coastal and marine environment in West Africa" and the Study Guide "Learning to become a citizen of the coast".

The "Training Document" accompanies these tools. It is addressed to different actors in environmental education using the tools of PREE and / or who need to train teachers / facilitators of environmental education.

This tool was created with a formative objective but also informative. The "Training Document" intends to:

- # Develop or motivate the curiosity of different actors for the use of tools;
- # Discover the learning tools of environmental education of PRCM (their construction and operation, the key elements, innovative ideas, etc.).
- # Provide elements for understanding and ownership of pedagogy and activities of the Study Guide;
- # Accompany the trainers of education stakeholders in the preparation of their training (the Training document is useful for creating training);
- # Develop the sense of belonging of education stakeholders to develop environmental education networks efficient and scalable.

Training and his support document are a collective experience based on sharing knowledge, expertise and know-being of all participants and stakeholders involved. They address various topics in a dynamic similar to the Knowledge Handbook and the Study Guide. So this is a formative and informative experience based on the concrete (explanations, theory, activities, discussions and proposals) and the participation of different actors.

The "Training Document" is intended to be "clear, concise and understood" to be motivational and motor. It becomes a facilitation element for the organization of training for the overall understanding of the challenge of environmental education and the need for personal involvement from all stakeholders.

The "Training Document" is divided into 5 parts. Each part being accompanied by a PowerPoint presentation:

- # Tools and operation of the Study Guide
- # Active pedagogy
- # Construction and use of topic sheets
- # Preparing and structuring a program of environmental education
- # Establish a training

Operation of tools and study guide

Tools presentation

As part of the PREE (Regional Program of Environmental Education) of PRCM, three tools are available to environmental education stakeholders:

- # The Knowledge Handbook "Discovering the coastal and marine environment in West Africa": teaching tool containing basic information about the coastal environment in West Africa for the preparation of environmental education sessions for teachers / facilitators and participants. First teaching tool created by the PREE.
- # The Study Guide "Learning to be a citizen of the coast" document containing the elements necessary to achieve in the classroom and field, different activities of environmental education. It contains guidance and teaching advice for the use of the ten thematic sheets, each treating a specific topic for teachers / facilitators and children. It turns into action some theoretical knowledge of the Handbook. The two documents are complementary.
- # The Training Document "to use the Study Guide" document outlining the operation of the Study Guide, the pedagogy used, by activating the participants and discussing the concepts of preparation training. This document is accompanied by a PowerPoint document. It is useful for the ownership of the two previous tools.

All tools are interdependent. They offer a selection of information, activities, and diverse explanations to address the environmental issues of coastal and marine zone of West Africa. They support environmental education projects in place and most importantly, they are scalable. These tools, supported by the actors can improve, adapt more precisely to specific regions, and expand the network and the diffusion, involve and motivate the adults of tomorrow for a healthier environment. "The child at the heart of the project! ».

The Study Guide

The Study Guide is a different tool. The choice was made of active pedagogy that puts the child at the heart of the environmental education project, thus placing it in a role full of responsibilities: it forces the child to assume challenges, make assumptions and look for solutions. The child is more independent. The teacher / facilitator assumes the role of guide.

Also, the Guide uses a fun approach to teaching and adapted to child in addition to presenting a wide variety of themes and activities to meet regional differences and interests.

Each topic sheet includes several thematic objectives. The objectives enable teachers / facilitators to guide the activities and thus to make the children progress in their learning.

Know the Study Guide

The Study Guide was created to complement the Book of Knowledge. The last one contains theoretical information on various topics affecting the coastal environment of West Africa. The Study Guide, with its themes and its various activities, allows teachers or facilitators to exploit the numerous information of the Knowledge Handbook. The two tools are complementary.

The Study Guide, offering an adapted approach to environmental education, offers flexibility to its user.

School teachers, facilitators, managers of marine protected areas and other environment stakeholders, the Study Guide is for everyone interested in the project and motivated to meet the challenge of environmental education for children.

Reminder of the general objectives of the Study Guide (page 7):

- # Help the child make the connection between the factors contributing or not to a better environment;
- # Sensitize to fragility;
- # Awareness of the causes and consequences;
- # Participate in the improvement;
- # Encourage participation in activities and initiatives of mitigation and adaptation;
- # Reflect on the risks and benefits;
- # Improve understanding;
- # Know everyone's roles in the conservation and resource management;
- # Learn to act for solidarity with future generations.

Construction and operation of the Study Guide

The Study Guide was built to gather in one document information and contents to do environmental sessions in an atmosphere of efficiency and simplicity. It strengthens the Knowledge Handbook.

The Guide includes an introduction followed by 10 thematic / topic sheets, each treating a specific theme.

The **introduction** of the Study Guide is the link between all topic sheets. From goals to teaching advices, it is essential to the accomplishment of the activities of each sheet. It contains a preface, the different objectives, themes, structure of a topic sheet, educational tools and games, icons present on each sheet, the overall academic advices and those specific to certain activities, and it ends with the child-sheet "My environmental record on the subject ...".

To understand the Study Guide, it is essential to read the introduction and especially to come back to it regularly to plan activities.

The **topic sheets** constitute the second part of the Study Guide, and selected ten themes developed in 10 thematic sheets. Each sheet of a dozen pages is built on a precise plan. The scheme is presented in the introduction (page 10). The topic sheets are transferable and used according to the activities that meet the program criteria of the teacher / facilitator.

For each activity of the topic sheets, advice and theoretical information allow its implementation. Some advice or instructions are common to all sheets; they were grouped in the introduction.

The Study Guide takes life with the involvement of teachers / facilitators, trainers.

Fun teaching tools in a few words

In introducing to the Study Guide, a part is reserved for educational tools. To better understand and know how to use these fun learning tools, here is some additional information.

There are ten themes. Ten themes chosen for their importance in the West African coast. In each of these themes lives a character. These characters are the "guests" specific to each theme. To make the connection between all the themes and create a link, Ms. Tarta, the teacher and his students Nina and Abdou.

LES 10 THÈMES PROPOSÉS ET LEUR PERSONNAGE

Thèmes	Titres	Personnages
Le littoral	<i>Trésor fragile et convoité</i>	Le pélican <i>Wore</i>
La pêche durable	<i>Du poisson pour demain</i>	Le poisson <i>Azul</i>
Les coquillages	<i>De l'assiette au collier</i>	Le coquillage <i>Luana</i>
Les zones humides	<i>L'eau, c'est la vie !</i>	La goutte d'eau <i>Wata</i>
Les espèces protégées	<i>Ambassadeurs de la biodiversité</i>	Le lamantin <i>Foutou</i>
Les aires marines protégées	<i>Aires merveilleuses et précieuses</i>	Le dauphin <i>Doudou</i>
La pollution	<i>Prends soin de ta planète !</i>	Le sac poubelle <i>Zazou</i>
Le changement climatique	<i>Attention ça va chauffer !</i>	Le soleil <i>Monsieur Sol</i>
Les mines et le pétrole	<i>La ruée vers l'or</i>	La goutte de pétrole <i>Minégasse</i>
Le tourisme responsable	<i>On a de la visite !</i>	La touriste <i>Emilia</i>



Three friends who discover a new character in each topic sheet.

But what are these characters? In addition of creating a link between the different themes, Ms. Tarta and students help guest characters to the move in the "Learning Tree" and follow the child in the acquisition of knowledge, skills and expertise.

The "Learning Tree" is a particular tree: each of its branches is dedicated to a theme and each character can climb the tree according to children's learning (knowledge, skills and know- be). The movement patterns of guest characters are left to the discretion of the teacher / facilitator who establishes the criteria alone or in collaboration with children. Using the different objectives (general and educational), he can fix the tags for advancement. It can also insert group-specific criteria such as participation, involvement or collaboration.



To implement the fun tools:

- # Establish terms of character development (this development is a form of evaluation);
- # Reproduce the "Learning Tree" and display it in the room;
- # Reproduce the characters of the chosen theme (s);
- # Involve the group in the movements of the characters in he "learning tree".

(Tree and characters to play - the Teacher's Guide pages 156-157)

When the guests finish their ascent in the " Learning Tree ", they find themselves in the leaves where the cross-cutting themes creates the environment.

The child develops in the learning tree with the guest character. He also follows his work by the child-sheet "My environmental record on the subject ..." (Pages 18-19 of the Study Guide). This support is reproducible for each topic. The child may have several sheets simultaneously.

Active pedagogy

Briefly

Active pedagogy is one of the methods that falls under what is called experiential learning, that is to say "learn by doing". This is to involve the child in situations (fictional or real) so he could use his skills (knowledge, life skills and know-how) and evolve.

Making the choice of active pedagogy is a way to affirm that the child is at the heart of the project and of the long term goals of environmental education. Pedagogy oriented person, taking account of its achievements and experiences, which lets you build new skills and learning technique that creates a real social relationship between children and teachers / facilitators.

Active learning is a pedagogy less framed than traditional teaching methods which are based on the transmission. Transmissive pedagogy is based on knowledge and sometimes leads to situations of failure (competitiveness). For environmental education, the goal is not so much to know everything but rather to turn knowledge into environmentally friendly behavior. This is primarily active learning in everyday life, development of autonomy and the acquisition of critical capabilities in order to make informed choices for the future and share with their environment. By mixing the forms of learning, intellectual creativity is fed.

To develop an active pedagogy, certain elements are essential:

- Achieve realistic situations: to allow the child to transfer the information to his own life;
- Be original in entertainment media: promoting the use of all senses (especially visual) allowing rapid integration of information;
- Use stimulating tools: to be more than information transfer. They activate the curiosity of all participants (the Guide, the sheet for the child, etc.).
- Create the opportunity to have fun: to remove the child conflict and affective contexts (related to personal circumstances). Make a game, it's something important to do (learn) without giving any importance!;
- Working and think in groups: to share the strengths of each other for mutual benefit and lead to greater involvement in learning;
- Build and participate in projects: to invest and learn by doing, transform skills into action. Become an agent of change;
- Improve the relationship teacher / child by the free expression of all: the teacher / facilitator should act as a mediator and facilitator;
- Establish collectively evaluation criteria: to define the learning tags with the children and enable them to assess themselves;

- Develop membership: to create cohesion, the taste of collective action.

Use active pedagogy is getting involved in both collective and individual learning. Is to transform and change the learning places: make them alive and active!

SOME EXAMPLES FOR ENVIRONMENTAL EDUCATION

All topics, activities and teaching materials of the Study Guide are designed according application of active teaching.

Here are some examples:

The characters and the "Tree of Learning":

Original and challenging facilitation supports. They allow children and teachers / leaders to join them. This educational tool offers the possibility of a collective and individual assessment on a broader base than knowledge, assesses all aspects of learning (knowledge, skills and attitudes). These supports are flexible and adapt to the context. They are important markers in all forms of learning;

Stimulating tools:

The Study Guide, Child-sheet, the Knowledge Handbook are documents stimulating the curiosity of teachers / facilitators and children. They are scalable and adaptable to the realities of everyone;

Activities:

Construction and presentation of activities explain the role of all participants (teachers / facilitators and children) in a collective work and the free expression of all. The teacher / facilitator is a facilitator, an attendant. Children develop their independence, they have responsibilities. Activities are easily achievable and close to everyday realities of everyone. The wide range of activities allows everyone to find the activity that corresponds more to him;

Projects in the classroom or at home:

Children's participation in projects can be used either as a gateway to tackle a topic, or the means to implement or realize the gains related to a theme. This project approach allows children to assimilate gestures and practical know-how. Through these projects and their influence within the community, the environmental education becomes a real force for change.

And more specifically ...

Activities "Search, we investigate! 1 and 2 "and" The news about me, I survey! ":

In each topic sheet, there are three research and investigation activities. Stimulating activity that takes place in a group with the teacher / organizer or subgroups. This is to go out of the classroom and watch the natural environment, interpret real-life situations, meet people, chat with the locals and elders of the city/village in order to find answers to various questions. All answers collected are shared. The teacher / organizer holds some theoretical information, but he does not disclose and it encourages children to look themselves for it, to think about environmental issues and develop a critical sense. The teacher / facilitator helps the group to complete his collection! The teacher / facilitator plays the role of facilitator. It lays the tags of the activity, it helps the organization. Children have a collective responsibility for improving their knowledge, skills and interpersonal skills;

Activities "And at home? "

Towards the end of each topic sheet, there is this activity that aims to reflect on how to behave. The group reflects on a specific topic. The theme of the discussion is initiated by the teacher / facilitator, students must organize the meeting (who takes notes? How to select ideas? Etc.). The group must propose two or three measures to be adopted. The teacher / facilitator has a

facilitating role, he must reframe, but he is involved, he does not impose. He must keep track of activity, he guarantees of continuity with the children;

■ **Various "Let's play! , "" Practical activity "or" Action ":**

All activities have a different character (scientific, experimental, fun, artistic, cooperative, competitive, intellectual, sensory, etc..), But they all have the same goal: learning by doing and also having fun. Make a game, it's something important to do without giving any importance!

It should be noted that active pedagogy does not mean that there are no rules. Each activity has specific instructions for its preparation and its realization.

Construction and use of topic sheets

The introduction of the Study Guide is followed by 10 thematic sheets. Before discovering the structure and activities of a sheet, it is important to remember that this introduction contains the information necessary for the implementation of activities, educational tools like the "Learning Tree" or the monitoring of child-sheet. Each of the 10 thematic sheets develops a specific theme and is constructed according to the diagram below (page 10 of Study Guide).

STRUCTURE D'UNE FICHE THÉMATIQUE

- 1** **Titre et sujet** - « Pourquoi ce titre ? » : *signification du titre et avant-goût du sujet*
Section : information pour l'enseignant/animateur
- 2** De quoi parlons-nous ? (*sujet, pourquoi ? , évolutions, solutions*)
Objectifs pédagogiques (*connaissances, savoir-faire, savoir-être*)
Section : Notre thème, notre invité
- 3** Histoire de l'invité (le personnage associé au thème)
Exercice de compréhension
Section : C'est quoi ?
- 4** Association de définitions
Section : Ce que je connais ? Questions, réflexions, réponses
- 5** Activité « Découverte » : *activité pédagogique pour la découverte du thème*
- 6** Recherche : nous enquêtons ! 1 : *recherche active d'informations sur le sujet*
Activité « Exploration » : *activité pédagogique d'approfondissement*
Recherche : nous enquêtons ! 2 : *recherche active d'informations sur le sujet*
Section : Des infos
- 7** Bougeons un peu ! : *activité pédagogique éducative, sportive, artistique, etc.*
Activité pratique : *activité d'application des connaissances*
- 8** Des infos près de moi, j'enquête ! : *jeu de rôles d'enquêteurs*
- 9** Au jeu ! : *activité ludique*
Section : Action
- 10** Action 1: *activité pédagogique variée*
Action 2: *activité pédagogique variée*
Section : Et chez moi ?
- 11** Discussion de groupe pour réfléchir aux comportements à adopter
Récapitulons
- 12** Questions Quiz : *évaluation des connaissances acquises et évolution de l'invité sur l'arbre d'apprentissage*
Des projets
- 13** Proposition de projets : *projets réalisables en classe ou à la maison*
***Outil pédagogique : « Ma fiche environnementale sur le thème... » - A réaliser avec les enfants pour chaque thème.**

Note - le terme « activités » regroupe tous les types d'activités d'apprentissage proposées : scientifiques, expérimentales, artistiques, sportives, coopératives, compétitives, intellectuelles, scolaires, sensorielles, etc.

PRESENTATION OF THE ACTIVITIES

The activities are detailed in four ways: 1/Presentation of the activity, 2/How to approach, adapt, facilitate the, 3/Using the activity in training and 4/Links to other tools or cross tracks with other educational materials.

	Presentation	How to approach, adapt, facilitate the activity	Using the activity in training	Links
	Cover: Cover of each topic sheet contains 4 pictures of the theme and the guest character. This page can lead to open discussions with children about their knowledge of the theme. Valuable information for the preparation of activities.			
1	Title and topic "Why the title?" Provides information on the topic and stimulate discussion.	Represent the topic in class in the "Tree of Learning".		
2	The Green Box "What are we talking about?» and educational objectives, a summary of the information contained in the topic sheet and presents an overview of the subject and the addressed points .	All these objectives, together with the general objectives of the introduction, are used to set the terms of the teacher / facilitator for the evolution of the guest character in the "Tree of Learning". They are useful for the composition assessment. They help to make the choice of themes and activities.	This page is important for the teacher / facilitator. It allows him to have some general information on the topic. We must make the presentation.	All topics are addressed in the Knowledge Handbook. For more information on the topic. For the construction of evaluation.
3	A story and a understanding exercise to introduce the theme and the guest character to the children. This activity should be the first to introduce a topic. Unlike other activities that may be in the desired order. It raises the tags for children.	Read the story before to identify the essential words. Complete the information for better understanding by the children. For facilitation, choose reading (by the children or the teacher, individually, collectively). Read the questions in the exercise of understanding before the classroom activity to feed the children's answers. Children can work in small groups or large group. Write the answers on the blackboard.	Choose a theme that concerns participants. Give an explanation of the implementation of that activity or to put participants in situations.	This activity can become an activity of reading, comprehension of written or even a dictation or recitation.
4	Matching game of words and definitions.	Read the words and definitions. If words are difficult, find synonyms. To facilitate, children could work in small groups. They use environmental record child-sheet.	To facilitate understanding of these activities and their usefulness in the future development of the theme, it is advisable to choose the same	In the Knowledge Handbook, there are several definitions at the end of the document. Practice spelling. Learning to use a dictionary.

	Presentation	How to approach, adapt, facilitate the activity	Using the activity in training	Links
		Children look and think. The teacher / facilitator can add words and definitions. Children present their answers using the blackboard or other support.	theme as the history and practice of understanding. Put participants in situations and discuss with them how to lead the association game.	
5	Activity "Discovery" or "exploration" is an educational activity to discover and explore the theme. In general, this is a simple and effective activity.	Read the activity, its advice and information theory. Prepare materials if necessary. For the achievement, important to facilitate. The teacher / facilitator accompanies and is involved with children.	Choose an activity "Discovery" or activity "Exploration". Alternate activities indoors and outdoors.	The Knowledge handbook contains several theoretical information for most activities. Activities may affect matters such as teaching geography, mathematics, science or arts. The teacher / facilitator can use them in these other contexts.
6	Investigative activities to leave the classroom and confront to reality. As a class or in small groups, children must find answers to various questions related to the theme. There is always an array of issues and theoretical information for the teacher.	The teacher / facilitator prepares the questions by reproducing them. He then distributes the questions to the children randomly. He can delete or add questions if he wants. He does not share the theoretical information, he gives indices to the children and let them search and find information. He defines the learning tags	Making at least one survey during a training in which participants play the role of children.	This activity develops the scientific and formulating hypothesis sense of children. This activity confronts the child to reality and obliges them to observe and interpret their environment. The theoretical information can be supplemented with the Knowledge Handbook.
7	Activity "Let's move a little! "Or" practical activity "goes deeper into the topic. It allows the children to gain new knowledge on the subject.	Read the activity and its advice and information theory. Prepare materials if necessary. For the achievement, to be animate facilitator. The teacher / facilitator accompanies and is involved with children.	Choose an activity "Let's move a little! "Or activity" Practical Activity. " Alternate activities indoors and outdoors.	The Knowledge Handbook contains several theoretical information and knowledge for most activities. Activities may affect matters such as teaching geography, mathematics, science or arts. The teacher / facilitator can use them in these other contexts

	Presentation	How to approach, adapt, facilitate the activity	Using the activity in training	Links
8	Investigative activities to leave classroom and meet reality. In teams of three and over several sessions, children have the task of investigating a specific topic. Preparations for the inquiry are made in class and then outside research. Children develop the questions. A research brief is available. It contains elements, ways to organize the survey.	Read all the information before. Address the activity in large group. Make the teams together. Accompany children in the organization of their investigation. Make regular checks of progress of their work. Feed the questions.	Activity very long for a training. Take a moment to make a simple presentation and explain.	This activity develops the scientific and hypothesis making sense children. The theoretical information can be supplemented with the Knowledge Handbook.
9	"Let's play !" Is a fun activity to learn while having fun.	Read the activity. Prepare materials if necessary. Play with children. Know the games to facilitate them.	Insert games into training program. They can alternate with more serious sessions. Know the games to facilitate them.	Games can be adapted to several school activities. A game is a disguise way to learn important things by just having fun.
10	2 activities "Action" by sheet. They are complementary to other activities and allow to discover new things about the theme or to apply skills.	Read the activity and its advice and theoretical information. Prepare materials if necessary. For the achievement of the activity, to be help facilitation. The teacher / facilitator accompanies and is involved with children.	Choose an activity.	The Handbook contains several theoretical information and knowledge for most activities. Activities may affect matters such as teaching geography, mathematics, science or arts. The teacher / facilitator can use them in these other contexts
11	"And me?" Is an activity of group discussion to reflect on how to behave at home, at school, for the future in relation to a specific topic. This activity must be conducted when the children have accumulated sufficient background information on the topic.	The teacher / facilitator presents the theme and the two objectives. Children control the discussion and organize the process (take notes, how to speak, etc..). Prepare the class for it to be friendly so that it pushes and eases the discussion, free speech (arrange the chairs in a circle). The measures chosen must be monitored by the teacher / facilitator and children.	Present the global model by placing the training room, launching a discussion to achieve the objectives.	Speaking

	Présentation	Comment aborder, adapter, animer l'activité	Utilisation de l'activité dans une formation	Liens
12	"Recap" is an opportunity to assess the achievements of children. This is a particular activity because it is directly related to the evolution of character in the "Tree of Learning". Questions on the subject allow to move the character. Children must answer correctly.	Classify questions according to where the knowledge of the children. A question whose answer is still unknown may also be part of a search for this information. Make sure to know the answers to questions.	During training, look at the "Learning Tree" and the characters selected topics. Move the characters on the tree as teachers / facilitators will do in class.	The answers are in the Study Guide and the Knowledge Handbook. Questions can serve as a test.
13	"Projects" are additional educational activities on the theme. There are many activities and other shorter. They are the practical achievements. These projects are gateways to tackle a topic or a way to implement and realize what children have learned.	Read the activity and its advice and theoretical information. Prepare materials if necessary. The teacher / facilitator accompanies and is involved with children.	A few short activities can be interesting. This is a moment to explain the essence of a long term project.	Can be linked and applied in several academic subjects.
<p>Reminder:</p> <p>The activities of a sheet have no established order, they can be made in the order you want. But, for the activities of the presentation and discussion activity for proper behavior, it is better to do at the beginning for the former and at the end for the latter (when children have a global vision the theme).</p>				

General information on the elements of a file:

The characters and their bubbles introduce to the following activity. Use these characters and their speeches to power your environmental education sessions. The icons give the approximate time of an activity, its nature and the composition of teams.

Activities are explained in the blue rectangles. "To the teacher / organizer" offer some tips for setting up the activity and theoretical information. General advices are given in the introduction.

This is along the implementation of activities that the characters move up in the "Tree of Learning". All activities can allow guests to move characters on their branch of the "Tree of Learning".

The sheet "My environmental record on the subject ..." gives children an educational tool for monitoring (photocopy or reproduce in his notebook). Thus, along the activities, the child completes its environmental record.

Preparation and structuring of an environmental education program for children

A program of environmental education must be prepared and structured to meet the needs of schools or facilitation centre and those of teachers / facilitators and children.

The Study Guide strengthens the programs established by the ministries. The activities of the Study Guide may cut across other school activities of different subjects. A diverse and useful tool.

To prepare a program of environmental education and, to choose the themes and activities, the teacher / facilitator, the entire teaching staff is working to establish different lines of thought that will make a selection. More than a selection of theme or activity, this reflection is also a structuring the environmental facilitation session time of the class and the school (or the structure of facilitation). Reflection should also take into account the understanding and application of active learning in the preparation, adaptation and facilitation of the different sessions. A thoughtful program and well prepared activities are key to get interest on the part of participants, fun and reaching the objectives.

To encourage reflection:

How to choose the themes? or topics?	<ul style="list-style-type: none"> - The location (reality) - Outreach activities related to the theme - Ministry programs - The interest of participants - Structuring the school: if the whole school is involved, choose one or two per level...
What activities in the theme? or more themes? What activities should be eliminated? Why?	<ul style="list-style-type: none"> - The location (reality) - The possible implementation (equipment, space, etc..) - The time available - The interest of participants (choose with them) - The number of participants
What is the rhythm of environmental sessions? (frequency, duration)	<ul style="list-style-type: none"> - The time devoted to environmental education in my class in school - The frequency of sessions - The number of feasible activities - The motivation of the group, the teacher / facilitator
What are the objectives of the class? The school or organization? related to environmental education	<ul style="list-style-type: none"> - Development of projects for the school, neighborhood - The development of peer tutoring (eg, older to younger children)...

During a training, the participants could work on different realities using diverse scenarios. Participants must develop a program based on the realities presented in the scenarios.

Three proposed scenarios:

1. School located in a capital city (urban areas, access to library and media)
2. School located in a small coastal town (close to the natural environment and limited access to means of communication)

3. School isolated in a small village (privileged access to the natural environment)

Some ideas to reflect:

- What themes choose or prefer?
- Which rhythm to give to EE sessions?
- How to generate interest students?
- How to find a balance between classroom sessions and outdoor sessions?
- How to translate EE learning into projects in school?
- How to foster links and exchanges on environment between the different classes / levels?
- What advice would you give to teachers?
- What advice would you give to school directors?

Establish a training

Implement training, this is choosing to take future trainers or teachers / facilitators in the world of environmental education.

Training shares the same objectives as this "Training Document" presented on page 3. More specifically an environmental education training has the following objectives:

- Discover the Study Guide (and other tools) and learn to use and exploit its sheets and activities as well as its entertaining and educational tools;
- Learn to understand and implement active pedagogy;
- Be able to implement an environmental education program at school or elsewhere;
- Be able to transmit formative and informative information on the environmental education through training time.

All training must take into account various factors such as context (the place, actually), available time, equipment, participants and the trainer. All these elements influence the conceptualization of the training.

Establishment of a training

To implement a training, it is essential to analyze several points to make the right choice of themes and activities, vary the programming, to provide a motivating training and reach objectives.

What is the context of training?	The location (reality): the local spaces available nearby, the characteristics of the region Outreach activities related to environmental issues Available materials (tables, chairs, small items of handicrafts, play equipment, etc..) The budget The expected time...
What is the educational material?	The Study Guide in print or digital (or both) The Knowledge Handbook in print or digital (or both) Document the training: to use of the Study Guide Presentation material PP Other materials for training...
Who are the participants?	Training for teachers / facilitators or for future teacher trainers / facilitators Expectations Experience in environmental education The number of participants Knowledge of active learning...
Who is the trainer or trainers?	Training experience Experience in environmental education (practical experience to provide additional information) Knowledge and application of active teaching The objectives...

In answering these questions, the future trainer sets the essential directions to build up its training. The themes and activities selected for training must follow the different tracks found.

To use this information, the trainer must know and have on hand the different tools:

- Study Guide (its main themes and activities, operations)
- Knowledge Handbook
- Document training and PowerPoint presentations that are associated

The choice of themes and activities are based on the different characteristics named above. It should also take into account the activities recommended in the same document in "Construction and use of theme sheets".

One must also consider:

- The breakdown of the training is based on indoor and outdoor activities and the types of activities, break times and length of working time;
- The application of active teaching: do training under the same conditions that a session of environmental education;
- The preparation of all activities prior to implementation training: all equipment must be ready, the teacher must know his role and gather further information;
- Preparing materials for the installation of educational tools: the trainer install tools before the arrival of participants and should provide the necessary materials (documents, forms of different educational games, teaching materials, etc..)
- Establish a training program.

Example: Training / Here is a sample of 2 days for teachers / facilitators.

Day 1	Program	Equipment needed
9.00	Arrival of participants	
9.30	Presentation of all participants and the organization of training their experiences, their expectations of training	
10:00	Presentation of tools and operation of the Study Guide	Training document (introduction and tools) Powerpoint "presentation" The Fun tools
10:30	Distribution of Materials Miscellaneous and debate	
11:00	<i>Break</i>	
11h30	Active learning	Training document (active learning)
12:00	Experiences of participants on active learning - discussion and debate	
13:00	Lunch break	
14h30	Activity: History of the guest, the guest and understanding matching game	The theme chosen and explanations of related activities
15h30	Construction and Use of topic sheets	Training document Powerpoint presentation on theme
17:00	Game ! All participants play	<i>Equipment for chosen game</i>
17h30	Return on the day. Questions et reactions.	

Day 2	Program	Equipment needed
9.00	Arrival of participants	
9:30	Activity "Search, we investigate! " Do research in a large group	activity and questions
11:00	<i>Break</i>	
11:30	Classroom Activity	Material related to the chosen activity
12.30	Back on activities: Understanding the activities Discovery of the Study Guide Assessment	
13 :00	Lunch break	
14.30	Prepare and structure an environmental education program in a school or other Make subgroups Prepare in program and present it to the whole group Reflect together on the program	training program (EE Program) Powerpoint "EE Program"
16:00	outdoor activity	equipment related to the chosen activity
17:00	Game ! – Participants make their choices All participants play	equipment for the chosen game
17:30	Return on training. Questions and reactions. Develop a support network to achieve the environment education sessions	