CARE Toolkit

Project proposal prepared by the REC for the Ministry for the Environment,

Land and Sea of Italy

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1 Development of the CARE toolkit

Education is an important tool for the sustainable development. Article 6 of the UNFCCC, as well as Article 10 of the Kyoto Protocol and Article 12 of the Paris Agreement stipulate the promotion of education, training and public awareness on climate change.

Building resilience and awareness to climate change is an urgent development priority and children should not play a passive role in this process, being themselves among the most vulnerable groups. Children have a major stake in the future and a right to participate in decisions that affect them, having in mind that climate policies are a long-term process, even an intergenerational one. Ensuring children's voices are heard in national and international policy is in line with the UNFCCC's priority for adaptation - to enhance the integration of climate change issues into national curriculum and policies, including through a bottom-up process.

Through the ad-hoc educational programme, it is possible to create awareness, instil knowledge, develop skills and encourage pro-activeness, with the goal of changing patterns of behavior in order to address the environmental, social and economic concerns facing modern society.

The proposed toolkit will be an innovative awareness-raising and educational multimedia resource, comprising materials that focus on climate change and its impacts on human society and the environment. It will support school education and public awareness raising to nurture citizens who can play a relevant and active role in practical implementation of climate adaptation and mitigation policies.

The CARE toolkit will build on the methodology, structure and results of the AirPack, the previous education tool-kit, developed by the REC team and ISPRA and IMELS, adding a section dedicated to climate change as a threat to indoor and outdoor air quality and human health. One of the goals achieved by the AirPack¹ was to increase understanding of the basic principles of environment and health topics, their practical application and contribution to improved healthy conditions in schools for future generations.

In order to reach the wider audience, the online version of the CARE toolkit will be available in English, Italian, French and Arabic.

2 Structure and format

A. Background information)

The toolkit will present key information on:

- the <u>importance</u> of the stable climate for human health, ecosystems and wildlife, agriculture, biodiversity and the economy;
- the <u>causes</u> of climate change (both natural and anthropogenic);
- the <u>impacts</u> of climate change on ecosystems, biodiversity, human health, the economy, agriculture, transport and security;
- solutions to climate change (mitigation, adaptation, resilience, policies and actions);

¹ http://airpack.rec.org/

- international decisions and activities (with a special emphasis on Rio, Kyoto, the post-Kyoto process, the Paris Agreement, and UN SDG 13- in annex/references will be selected to climate change topic); and
- <u>actions</u> to combat climate change at individual and community level (changes in lifestyle, community-based activities, and the mainstreaming of climate change concerns in sectoral policies and measures).

This part of the toolkit will provide mainly for teachers and students background information on climate change, the reasons for it, and its implications for society and the environment. Appropriate websites containing information on different aspects of climate change will also be listed, for further use and reference by educators in upgrading their educational activities.

B. Educational materials (lesson plans, student factsheets, quizzes, memory games, introductory video)

This part of the toolkit contains standard educational materials with an interdisciplinary (cross-curricular) character that can be used during subject classes or/and outdoor activities.

- Lesson plans² provide information on the main concept and relevant subjects. They indicate the lesson objective and methodology, and they also suggest the materials needed, the amount of time required, and a suitable location. They are structured into four main sections: introduction; instructions on how to organise the educational activities; follow-up addressing other family members; and factsheets³ outlining specific tasks for individual student work.
- Quizzes: designed for use by children to test how much they have learnt in the course of the lessons delivered by their teachers using the Tool-kit materials.
- Memory games: designed for use by children, providing them with a fun way to access important facts about climate change elements, by finding matching pairs of pictures.
- Introductory video*4: explaining the importance of climate change and impacts on societies, and the need of mitigate the risks and develop the adaptive capacity with active participation on individual and community level. The video will contain introductory information about the tool-kit.
- Interactive educational materials (the fact sheets, quizzes, the memory game) etc.)
 will encourage the use of more interactive methods of education, including group discussions, brainstorming, role play, research etc5.
- How to use

The CARE toolkit will provide information on how to use the resources provided for teachers and children. The instruments for teachers are intended to help them in

2 For a sample lesson plan, see: http://www.greenpackonline.org/english/english/lessons/pdf/15-1.pdf

3 For a sample fact sheet, see: http://greensteps-assets.rec.org/downloads/15_01EN.pdf

4 (optional, to be decided during implementation phase) - • The video (3-5 minutes duration) can be part of the tool-kit or a separate promotional material.

5 https://climatekids.nasa.gov/menu/teach/

preparing and delivering targeted lessons through lessons plans and factsheets. Children will have at disposals background information (targeted on their age) and instruments for learn-by-playing. The proposed tools are:

- The <u>lesson plans</u> start with a short introductory section, which can be supplemented with additional data from the background information. It us up to the teacher to identify and select additional facts and details from the appropriate websites (recommended in the toolkit), bringing the educational process closer to local reality and local challenges.
- The use of fact sheets, the <u>activities connected to</u> the core of the lesson plans. They have a guiding rather than a compulsory character, and are intended to kindle the teacher's imagination and lead to the organisation of events similar to those suggested, while addressing the particular needs of the students and drawing on their specific abilities.
- <u>Student factsheets</u>, diagrams and stories are made available as pdf files that can be photocopied for distribution during lessons⁶.
- The <u>background information</u> (activities to combat climate change as individual at school, family and community level) will stimulate the application of the principle "Think globally, act locally" by advising users on the role of every citizen in supporting global efforts to combat climate change by lifestyle changes, the use of renewable energy sources, or the improvement of energy efficiency at home.
- Quizzes: designed for use by children to test how much they have learnt in the course
 of the lessons delivered by their teachers using the Tool-kit materials. It is up to the
 teachers to decide the time for the use the Quizzes.
- Memory games: designed for use by children, providing them with a fun way to access
 important facts about climate change elements, by finding matching pairs of pictures.
 The use of memory game can check the knowledge and understanding of the lessons.

Technical information:

The toolkit will be developed as a regular website, with a similar structure as the AirPack, and as described in the document. The address of the toolkit should be care.rec.org or something similar. It will be a responsive website so that it will adjust itself to various screen sizes made with HTML5, PHP and CSS, with a database behind. In order to have the content translated in different languages, a content management will be developed so that we can give access to various partners/third parties to it so they can make adjustments to the text.

All tests and quizzes will be stored in a database, thus we will not recommend having the toolkit on a memory stick or other offline medium. Only the static part of the tool-kit can be stored on the memory stick.

The website will be hosted and maintained for a minimum of 5 years on the REC servers.

The layout of the website will be adapted to the intended target audience and most probably will look different than the AirPack but similar in structure.

6 examples available at http://airpack.rec.org/)

3 Expected results

- 1. The interactive resource toolkit on indoor and outdoor air quality and pollution health risks associated to climate change (CARE), including a variety of reference materials for use in the European region, available online (hosted in the same web platform as the AirPAck but will be a separate as the CARE Pack) in English, Italian, French and Arabic.
- 2. The English version of the toolkit will be tested with teachers, students, education and environmental health authorities.
- 3. Increased awareness of climate change among the target group
- 4. Measurable improvement of integration of environmental education and sustainable development in the curriculum in formal education
- 5. Increased preparedness for changing climate through quality education
- 6. Improved holistic view, amongst the target group, of climate change and mitigation and adaptation and how school communities can contribute to both.
- 7. Establish pilot models of educational materials on Climate Change, which might be easily adaptable and used in other countries in the future.

Annex 1: Draft implementation work plan

Annex 2: Draft Budget

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The indicative start date:

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B	Budget per project phase as per work plan	k plan			
Expenditure categories	Note	Unit	Unit rate	# of units	Budget EUR
Project Management Activities	covered by REC management fee (see detailed budget)		8.257.63	_	8 257 63
Total Management Activities)				8.257,63
Inception phase					
Refining the work plan and the methodology in cooperation with the Beneficiary	for no of man days and expert category see work plan	man-day	550	3	1650
		man-day	400	2	800
Data Collection on the existing situation, available	for no of REC expertise man days	man-day	550	4	2200
documents, related projects, etc.	and category expert see work plan	man-day	550	2	1100
		man-day	400	~	400
Total Inception phase					6150
Implementation phase					
		man-day	550	7	1100
		man-day	400	2	800
	for no of REC expertise man days	man-day	550		2200
Finalisation of the structure and format of the CARE		man-day	220		1100
tool-kit	מוכל מוכל אכון פרלים וליפון לופון	man-day	400	3	1200
		man-day	550		550
		man-day	400	3	1200
	External expertise	lumb-sum			1000
		man-day	920	2	1100
		man-day	400	3	1200
Development of the content of the CARE tool-kit	for no of BEC expedise man days	man-day	550		1650
Educational materials (lesson plans, student	and category expert see work plan	man-day	550		1100
factsheets, quizzes, memory games, introductory	מות כמנכחתו בילכו פכם אחוי לומו	man-day	400		1200
video)		man-day	550	3	1650
		man-day	400		2000
	External expertise	lump-sum			3000
		man-day	400	1	400
		man-day	250	2	1100
	for an of BEC avacatica man dave	man-day	550	1	220

	וכן ווכ כו ואדר פעלים וופון מפלים	man-dav	400	2	800
Development of the CARE production, technical	and category expert see work plan	man-day	550	5	2750
I Biop 'v OM		man-day	400	19	7600
		man-day	400	6	3600
	-	man-day	400	3	1200
-	External expertise website	lump-sum			2000
	External expertise	lumb-sum			200
			3		
		man-day	550	7	1100
		man-day	400	2	800
		man-day	220	2	1100
Toeting the English deriver of the OADE	ond optional experiese mail days	man-day	550	2	1100
	aild calegoly expell see work plail	man-day	400	. 1	400
		man-day	550	2	1100
		man-day	400	10	4000
		man-day	400	2	2000
		man-day	400	2	800
	External expertise	lump-sum			1500
Travel of project experts		lump-sum			5.100,00
ACE workshop	travel, accommodation, per diems	lump-sum			1.500,00
Printing of publications ((CARE TOOL-KIT pen drives, leaflets)		lump-sum			7.500,00
Translation to Italian, French and arabic language	(lump-sum			11.000,00
QA and delivering the final CARE products to the—					
donor		man-day	920	1	550
		man-day	220	1	550
		man-day	550	1	550
		man-day	400	1	400
	External expertise	lumb-sum			2000
Total implementation phase					85600
GRAND TOTAL					100.007,63