FEASIBILITY STUDY ON THE PROPOSAL TO ESTABLISH THE OFFICE FOR CLIMATE EDUCATION (OCE) IN PARIS AS A UNESCO CATEGORY 2 CENTRE

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I. BACKGROUND

- 1. The Paris Agreement emphasizes in its Article 12 the importance of education, training and public awareness with respect to climate action/achieving the objectives of the Agreement. Climate Change Education (CCE) and public awareness raising enable informed decision-making, play an essential role in increasing adaptation and mitigation capacities of communities, and empower women and men to adopt sustainable lifestyles. Such CCE, which takes place at all educational levels, requires a multidisciplinary approach based both on traditional scientific disciplines and on humanities and social sciences. In this context, the scientific community has a central role recognized in 2017 by the world Science Academies, gathered during the InterAcademy Partnership for Science (IAP) in their Statement on Climate Change and Education.
- 2. Undertaken in synergy with the overall UN system, UNESCO develops and implements climate change actions through actions undertaken by UNESCO Major Programmes as well as through intersectoral and inter-programme cooperation involving UNESCO Headquarters and field offices and including through its network of Category 2 Centres (C2C), with the purpose of providing Member States with climate-related knowledge, data and information services and policy to enable a shift in mind-sets towards enhanced sustainability. A number of UNESCO Category 2 Centres are already operating in the field of Climate Change from a purely scientific perspective, such as the International Sustainable Energy Development Centre in Moscow (Russian Federation), the International Centre for South-South Cooperation in Science, Technology and Innovation (ISTIC) in Kuala Lumpur (Malaysia), the Centre for Water for Sustainable Development and Adaptation to Climate Change (WSDAC) in Belgrade (Serbia). However, there is not yet any Centre working specifically in the field of Climate Change Education (CCE).
- 3. This feasibility study seeks to analyse the potential for the establishment of the Office for Climate Education (OCE) as a UNESCO Category 2 Centre, and offers elements to inform the decisions to be adopted by UNESCO's Executive Board and General Conference.
- 4. With the joint support of the InterAcademy Partnership for science (IAP) and of the Intergovernmental Panel for Climate Change (IPCC), a number of scientific and educational institutions, including NGOs, decided in 2018 to create an Office for Climate Education (OCE). Its vision is to organize a joint scientific, pedagogical and operational cooperation at the international level to promote CCE. The OCE office operates in the field of CCE, particularly with respect to climate adaptation and mitigation, and contributes to sectoral policies and reforms in these areas.
- 5. On 26th March 2019, UNESCO received a proposal from the Government of France to establish the OCE in Paris as a Category 2 Centre under the auspices of UNESCO. Elaborated by the Office for Climate Education (OCE), the mentioned proposal received official support and endorsement by the Government of France (Ministry for the Ecological and Inclusive Transition and Ministry of National Education and Youth).
- 6. The interest in establishing the UNESCO Category 2 Centre was born through the existing connection between OCE and the International Science, Technology and Innovation Centre for South-South Cooperation (ISTIC) in Kuala Lumpur, which is already a UNESCO Category 2 Centre. Through

discussions between UNESCO's former Assistant Director-General (ADG) for the Natural Sciences (SC) and Professor Léna, the possibility of OCE becoming a UNESCO Category 2 Centre was raised. However, the decisive moment came during the meeting in November 2018 between the President of the OCE and three of UNESCO's ADGs (Education, Natural Sciences and Intergovernmental Oceanographic Commission), where an agreement on the relevance of such a proposal was reached (step 1). A meeting between the OCE and the French National Commission for UNESCO followed, where further support to the initiative was received (step 2). Finally, the involvement of the French Government was ensured through support letters from various line Ministries (step 3).

7. The main objectives of the OCE include: (i) Provision of an educational service of the IPCC reports, influencing school programmes all around the world and thereby reaching out to a large number of students; (ii) setting-up of quality standards by means of verifying that all pedagogical resources produced are accurate scientifically and 'state-of-the-art'; and (iii) unfolding experiment-based science education through 'hands-on' practice. The motto is 'building critical minds and hopeful hearts' in learners, by empowering them with skills to develop these critical minds. OCE aims to develop locally relevant projects, and sees education as 'not just knowledge'. The OCE sees its recognition as UNESCO Category 2 Centre as a great opportunity to see the scope of all these objectives significantly enlarged.

II.FINDINGS OF THE FEASIBILITY STUDY

II.1. RELEVANCE AND POTENTIAL IMPACT

- 8. The Office for Climate Education (OCE) and its international network of operational partners aim to:
 - Focus their efforts on teachers at the primary and secondary school levels.
 - Follow the publication of IPCC reports by providing teachers with quality, multilingual (English/French/Spanish/German) and locally adapted, free and open educational resources developed jointly with the scientific community.
 - Facilitate active pedagogy and encourage empowerment of children to invite actions towards climate change adaptation and mitigation at the local level.
 - Provide a wide range of training opportunities for teachers with respect to Climate Change Education (CCE)
 - Focus efforts on developing countries, involving educational networks such as FEE's Eco-Schools, Experimento from the Siemens Foundation, the UNESCO Associated Schools Network (ASPnet) and others
 - > Ensure the worldwide promotion of climate change education, including within curricula.

This is well aligned with UNESCO's priorities, focusing on quality education (SDG 4), and whose target 4.7 specifically addresses education for sustainable development, and on climate action (SDG 13), where target 13.3 explicitly addresses climate education. It is also aligned with those of ASPnet, which aims to support schools and training institutions to implement Climate Change Education through a 'whole-school approach'. Through the UN Alliance on Action for Climate Empowerment, UNESCO supports and guides countries to meet commitments under the Paris Agreement (Article 12) and UNFCCC Article 6 on education.

9. In terms of the estimated quantitative impact of the OCE's activities, a detailed calculation has been done on the potential impact of the project between 2019 and 2022 in order to reach several

tens of thousands of teachers¹. The estimated minimum impact lies at about 28,000 classes involved, which equals more than 1.4 million children over the age of 5 years, with a potential of doubling that number in a best-case scenario. This calculation is based on the experience of the Foundation La main à la pâte,2 which has shown that; if (i) the resources are of high quality, free of charge and easy to access; (ii) the support is personalized enough; and (iii) the project is run in partnership with educational authorities, a snowball effect sets in and year after year amplifies the initial impact. This snowball effect is enhanced by word-of-mouth communication between teachers, the training of key people (teacher trainers) and the quality of the network facilitation. For La main à la pâte's project, this has led to a multiplication factor of up to five with a conservative multiplication factor of two. UNESCO recognizes the multiplier effect of teacher training initiatives in fields like sciences, and their huge impact potential.

10. In terms of qualitative impacts, the activities proposed by the OCE are relevant to:

- > Students: In addition to improving knowledge on climate change, the actions carried out aim to develop students' reasoning skills, critical thinking and initiative, while promoting their empathy and positive attitude. UNESCO supports activities promoting critical thinking skills and values education.
- > Teachers: Upgrade of their scientific knowledge, a discovery of new practices, an appropriation of resources and a usage of new tools (especially digital ones). These new skills go beyond climate education alone, and can be reinvested in other activities, break the isolation they often suffer, by encouraging peer-to-peer exchange, local and distance support, and by creating links with the scientific community. Teachers can highlight their involvement by participating in local, regional or international events and, where appropriate, by an accreditation system facilitating their career advancement. This is in line with UNESCO's overall focus on Teacher Development and Support.
- > Local communities: The activities conducted within the classroom and school need to be extended to the community at large. This can be done either in a preliminary way, through prior considerations and debate on potential local actions of mitigation or adaptation to climate change, or in a concrete way, through actual actions. This addresses the particular significance given by UNESCO to non-formal education channels to complement the formal education system.
- > Scientists: The OCE provides both a structured framework for them to carry out outreach actions at local, regional or international levels and a guarantee of acknowledgement of their actions. Researchers participate in the development of pedagogical resources and teacher development activities, thereby bridging the gap between Education and the Sciences, as promoted by UNESCO.
- > Institutions: The OCE provides scientific, pedagogical and methodological support to educational institutions in order to promote Education for Sustainable Development and professional development of teachers, particularly in developing countries. It offers multiple opportunities for exchanging with other institutions involved in the project, through network meetings and through a collaborative creation process. It gives a national and international visibility to actions carried out locally. This responds to UNESCO's focus on the outreach and visibility of valuable local existing teaching initiatives and practices.

¹ For detailed information on this calculation, please refer to the 'Minimum estimated impact of the project' as included in Chapter IV. 'Expected Impacts' of the OCE proposal

² La main à la pâte is a foundation of scientific cooperation created in 2011, whose founding members are the French Académie des Sciences, the École Normale Supérieure (Paris) and the École Normale Supérieure de Lyon. The Foundation works in support of science education and its expertise is internationally recognized.

II.1.1. RELEVANCE IN VIEW OF UNESCO STRATEGY FOR ACTION ON CLIMATE CHANGE

- 11. The power of education in climate change responses was acknowledged at the Paris Climate Conference (COP21) in 2015. When delegates from 195 countries drafted the Paris Agreement, Article 12 on education was the first to be agreed upon, aiming to enhance climate change education, training, public awareness, public participation and public access to information. Furthermore, Article 6 of the UN Framework Convention on Climate Change and the Lima Ministerial Declaration on Education and Awareness-raising call for including climate change in school curricula and development plans further contributing to an enabling international policy environment. OCE's mandate and overall vision is strongly aligned with the principles of these framework agreements, as well with the 2030 Agenda for Sustainable Development and its SDGs 4 (target 4.7) and 13 (target 13.3).
- 12. OCE contributes programmatically to UNESCO's Strategy for Action on Climate Change (2018-2021) and its motto "Changing Minds, Not the Climate", by:
 - ➤ Fostering efforts to make education a central part of the international response to climate change
 - ➤ Facilitating dialogue and exchange of experiences on CCE through international expert meetings
 - > Supporting countries to integrate climate change education into their school systems through capacity building activities and whole-school approach
 - Mobilizing schools for climate action through UNESCO's Associated Schools Network (ASPnet)
 - Offering free access to educational resources online and developing technical guidance materials and teaching and learning resources
 - ➤ Raising awareness and promoting good practices on climate change mitigation and adaptation
- 13. OCE strongly adheres to provisions set in UNESCO's Strategy for Action on Climate Change, in particular point 8, stating that UNESCO actions on climate change will include the following thematic action focus areas: (a) supporting Member States to develop and implement climate change education and public awareness programmes and policies; and (b) promoting interdisciplinary climate knowledge and scientific cooperation for climate change mitigation and adaptation.
- 14. The effective implementation of the UNESCO Strategy for Action on Climate Change also encourages Member States to provide voluntary financial support to enable the scaling-up of UNESCO's climate change action, which would be the scenario under the OCE recognition as UNESCO Category 2 Centre.
- 15. The UNESCO Strategy for Action on Climate Change further specifies that UNESCO's climate change actions have to be developed and implemented through its network of category 2 centres.
- 16. Programmatically, the thematic action focus areas of UNESCO's Strategy for Action on Climate Change addressed through OCE's Strategic Objectives (SO), include, but are not restricted to Thematic Action Focus Area (B) Promoting interdisciplinary climate knowledge and scientific cooperation for climate change mitigation and adaptation, in particular with respect to:
 - ➤ B1. Ocean and climate (specified as SO 1 of OCE)
 - > B5. Science, technology and innovation, through the work of UNESCO Category 2 Centres

- collaborating with Member States to increase institutional and human capacities in the sciences and engineering, including in the area of climate change (MP II, ER 2).
- > B7. Local and indigenous knowledge (specified as SO 3 of OCE)
- ➤ B8. Information and communication technologies (specified as SO 2 of OCE)

II.1.2. CONTRIBUTION TO UNESCO'S PRIORITIES

II.1.2.1. Gender Equality

- 17. Gender equality has been one of the two global priorities at UNESCO since 2008 and remains so today. UNESCO is also committed to increasing the number of women working in climate science. In contribution to this, the OCE has approved a Charter calling for their local partners to comply with a set of criteria for the implementation of decentralized training activities, including among them gender-balance. When organizing field activities, OCE makes sure that participation is balanced and includes both female and male scientists and teachers, as well as youth.
- 18. OCE's project focuses its action on formal education, from primary school onwards, thus potentially reaching all audiences, and in particular girls (SDG 5). The OCE strategically chose primary education because of its gender balance, it being the educational level with the lowest girl dropout. It shall contribute to the UNESCO Strategy for Action on Climate Change in terms of points 47³ and 49⁴.
- 19. The current main funder of the OCE, the Fonds Français pour l'Environnement Mondial (FFEM), already raised the issue of the integration of principles of Gender Equality and Equity within the operations of OCE. Thus, when OCE writes a pedagogical resource, particular attention is paid to the use of gender-sensitive language. UNESCO Mexico office i.e. accompanied OCE's local partners in terms of gender-sensitive language adaptation during various training sessions. Furthermore, at the internal management level, OCE puts special attention to ensuring that all their internal OCE committees are gender-balanced, and have presence of women and men at all hierarchical levels.

II.1.2.2. Africa

20. UNESCO gives high priority to Member States in Africa in support of their mitigation and adaptation actions through UNESCO's extensive network of field offices. In this regard, UNESCO's Climate Change Strategy puts special focus on this region as a UNESCO Global Priority. The focus of OCE lies rather on developing countries as a whole. Currently, ongoing projects in Africa are not as numerous as in Latin America, because of FFEM's geographical focus on that region. However, Africa has been identified as a geographical priority area of work for the OCE in the near future. Large-scale, local activities are already being planned in the African region, such as professional development actions for teachers and teacher trainers in Madagascar. The main difficulty encountered lies in how

³ 47. As effective agents of change in relation to climate change mitigation and adaptation, and education for sustainable development, enhancing women's capacities to address climate change is a critical area of action. Women's access to resources as well as their involvement in decisions and the development of policies related to climate change is of utmost importance both to identify their specific needs and priorities but also to make full use of their knowledge and expertise, including traditional practices.

⁴ 49. UNESCO will therefore work to raise awareness of gender specificities in adaptation and mitigation to climate change, including through the collection and use of sex-disaggregated data, mapping of gender-specific emissions profiles, and differences in mitigation and adaptive capacities and strategies.

to scale-up the scope of actions being carried out in individual African countries.

- 21. In order to be recognized as a UNESCO Category 2 Centre, the work of the OCE will reinforce its contribution to UNESCO's Strategy for Action on Climate Change on points 53⁵ and 58⁶. Until now, only one regional training session took place in Africa on Teaching climate change (in Benin), with involvement of policy makers from different countries, such as Cameroon, Chad, Ivory Coast, Mauritania, Niger and Senegal. Other activities are planned in the near future in Africa (in Madagascar and Senegal) through a project with funding from the Agence Française de Développement (AFD)'s *Institut de Recherche pour le Développement* (IRD). The OCE also envisages to participate in Centres for Education to Science in Africa, the Mediterranean and Europe (CESAME), a Pan African project in Science Education, as part of which a dozen of science education institutions have gathered as a network with a view to implement quality science education.
- 22. Teacher professional development activities will also provide an opportunity to disseminate the resources designed by the OCE network in Africa, but also to contribute to the development of these resources. Teachers are invited, during the training sessions, to design pedagogical projects adapted to their local needs and constraints, which should lead to concrete actions. OCE process has already tested this process in Benin and other African countries, where it has proven its efficiency. This would be strongly aligned with UNESCO's initiatives on teacher capacity development.
- 23. Within Africa, 10 organisations have expressed their interest to collaborate with the OCE, and 3 of them have already conducted operational actions. These are the Academy of Sciences, the Ministry of secondary education (via AFD partnership) in Benin and the Mauritius Institute of Education (MIE). In the case of MIE i.e. through their participation at the OCE meeting in Erice (Italy), a commitment was taken to prepare textbooks for Year 8 learners in Mauritius over the course of the year 2018. These textbooks, where Climate Change is addressed as a cross-cutting issue across subjects, are currently being used. The MIE also is part of the participatory approach of evaluation of existing international resources, as promoted by the OCE, and participates at the international meetings of the OCE's Scientific and Pedagogical Committee.

II.1.2.3. Small Island Developing States (SIDS)

- 24. UNESCO places a high priority on providing multidisciplinary support to SIDS in all areas of expertise through programmes such as Sandwatch, which combines education and a unique action-oriented MAST (Measure, Analyse, Share and Take action) approach to provide coastal communities with the resources to understand the past and prepare for the future. The work on oceans, by means of the development of resources linked with "Ocean and Cryosphere" among others, is the current area of focus of the OCE. OCE plans to link its work in this field with the priorities of UNESCO/IOC. In this regard, Sandwatch will be one of OCE's five pilot projects in the area of oceans.
- 25. The recognition of the OCE as a UNESCO Category 2 centre would significantly contribute to

⁵ 53. UNESCO shall aim to improve education, outreach and the policy dimension of addressing climate change in African countries, in addition to its direct contribution to the regional knowledge base. Particular attention shall be paid to the development of science and technology and related policies, as stated in the UNESCO contribution to the African Union Science and Technology Consolidated Plan of Action.

⁶ 58. UNESCO and its global priority Africa will promote the multi-dimensional challenges relating to climate change. Special attention will be paid to establish joint initiatives among indigenous and scientific knowledge holders to co-produce knowledge to meet the challenges of global climate change (MP II, ER 3).

UNESCO Strategy for Action on Climate Change on points 61⁷, 62⁸, 63⁹ and 67¹⁰.

26. OCE has established contacts and initiated work in the region of the Pacific Ocean, in countries and territories such as Fiji, Vanuatu, Kiribati and New Caledonia. Furthermore, Indian Ocean SIDS have requested OCE for joint collaboration on various fields. Research has been initiated by OCE on the impacts of 'El Niño', with the intention to carry out outreach activities in SIDS. Through these kind of actions, the OCE would address the unique vulnerabilities and challenges faced by SIDS, as identified in the dedicated UNESCO SIDS Action Plan, which represents UNESCO's engagement in the implementation of the SIDS Accelerated Modalities of Action (S.A.M.O.A.) Pathway.

II.1.2.4. Youth

- 27. The recognition of OCE as a UNESCO Category 2 Centre would contribute to UNESCO Strategy for Action on Climate Change on point 70^{11} .
- 28. Following the public movements of youth in relation to Climate Change, the OCE has launched a series of activities oriented towards youth's engagement. A project has been initiated with support by the French Ministry of National Education and Youth on the integration of Climate Change issues in high schools. Another initiative addressing youth includes the 'Climate-KIC', whereby OCE plans to organize a *Climathon* experience, with the objective of calling students aged 13-18 years to come up with a project on Climate Change adaptation and mitigation. Further, collaboration with the Earth Day Network and provision of resources and networks to projects of scientific-artistic nature is envisaged. All of these respond to UNESCO's aim to engage youth in the climate change response, both in formal and informal settings.

II.1.3. CONTRIBUTION TO UNESCO'S STRATEGIC OBJECTIVES

29. There is a clear programmatic linkage between the centre's activities and UNESCO's mandate. As a recognized entity, and a reference on scientific and pedagogical expertise, OCE has the capacity to

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⁷ 61. The dedicated UNESCO SIDS Action Plan proposes a set of objectives and follow-up actions to address the unique vulnerabilities and challenges faced by SIDS. It represents UNESCO's engagement in the implementation of the SIDS Accelerated Modalities of Action [S.A.M.O.A.] Pathway, while reflecting the 2030 Agenda including the corresponding SDGs and their specific targets, as well as the UNFCCC COP21 Paris Agreement outcomes. Indeed, the Action Plan echoes many articles of the SAMOA Pathway, including Climate Change (paragraphs 31-46), and reflects most of the SDGs and some of their specific targets such as SDG 13.

⁸ 62. The focus of the Action Plan consists of five priority areas and aims at reinforcing SIDS human and institutional capacities via education and capacity-building; promoting culture for sustainable development; as well as increasing connectivity, information management and knowledge sharing in SIDS. It mobilizes UNESCO's multidisciplinary expertise from all its programme sectors to address the unique vulnerabilities and challenges faced by SIDS, including climate change.

⁹ 63. Sandwatch project: Sandwatch helps communities and policy-makers anticipate threats and co-design potential adaptive solutions to reinforce their resilience and contribute to global assessment process. It also includes an education component engaging many ASPnet schools.

¹⁰ 67. In the context of the draft 39 C/5, UNESCO will reinforce environmental monitoring and resilience, including through citizen science and science education as measured by programmes to strengthen community-based monitoring of environmental change, including climate change (MP II, ER 3).

¹¹ 70. In line with the UNESCO Operational Strategy on Youth (2014-2021), the role of youth in leading change, by mobilizing their energy and ideas to address climate change will be particularly emphasized. UNESCO will mobilize its youth networks, (...) by encouraging their engagement as knowledge holders, innovators and leaders in policy processes, as well as in education and public awareness campaigns. Building capacities of youth to become today's and tomorrow's drivers of green economies, green growth and sustainable development will be a particular priority.

complement both UNESCO's work in Education and in Natural Sciences, as it proposes an interdisciplinary approach in the implementation of its activities. Teacher professional development is a significant part of OCE's work based on inquiry-based science education, as is the provision of quality pedagogical resources. It further aims to provide local responses to large-scale sustainable development issues, through the implementation of localized educational projects.

- 30. The programmatic justification of the OCE's work is clear in terms of its contribution to the 2nd overarching objective of UNESCO's Medium Term Strategy (37 C/4) on Equitable and sustainable development, primarily in terms of its Strategic Objective 5 (Promoting international scientific cooperation on critical challenges to sustainable development), but also in terms of SO 2 (Empowering learners to be creative and responsible global citizens) and SO 4 (Strengthening science, technology and innovation systems, and policies nationally, regionally and globally). The OCE's is equally in a position to significantly contribute to the objectives defined in UNESCO's 39 C/5, in particular SO 2 (Empowering learners to be creative and responsible global citizens and SO 3 (Leading and coordinating the Education 2030 Agenda) of MP I (Education) and SO 5 (Promoting international scientific cooperation on critical challenges to sustainable development) of MP II (Natural Sciences).
- 31. The following activities carried out by the OCE are effective in terms of contributing to UNESCO's overall mission and mandate.
 - Publication of guidelines for stakeholders
 - Provision of open and free resources and training for teachers
 - Contribution to general UNESCO reports on Education for Sustainable Development
 - Organization and participation in UNESCO international and regional events
 - Establishment of partnerships with scientists and scientific institutions associated with UNESCO
 - Promotion of North-South and South-South exchanges between UNESCO Member States
- 32. The OCE also respects UNESCO's values, in particular in terms of the UNESCO Declaration of Ethical Principles in relation to Climate Change, which includes measures to address climate change in and to promote sustainable development and environmental sustainability in an equitable manner. A number of principles of this Declaration are not only covered, but also promoted through OCE's work, in particular Article 8 on 'Science, Technologies and Innovations' (through its point 5^{12}), Article 11 on 'Education' (through its points 3^{13} and 4^{14}) and Article 14 on 'International Cooperation' (through its points 3^{15} , 2^{16} and 3^{17}).

II.1.3.1. Contribution to UNESCO's Education for Sustainable Development (ESD) programme

¹² 5. Promote access to information and training opportunities, including open data and Open Educational Resources (OER), relevant to the challenge and solutions associated with climate change, so that they are shared across the entire scientific and other relevant communities internationally.

¹³ 3. Promote formal, non-formal, and informal education with regard to climate change challenges and solutions, and encourage retraining for professionals in line with these objectives.

¹⁴ 4. Encourage educational institutions and educators to integrate these principles in their teaching activities from the preschool to university levels.

¹⁵ 1. Facilitate, support and engage in international processes and programmes to communicate these principles, and to promote multidisciplinary, pluralistic, and intercultural dialogue around them.

¹⁶ 2. Facilitate, support, and engage in international research collaborations and capacity-building initiatives related to climate change.

¹⁷ 3. Promote sharing of the results of science, technological innovations, and best practices in response to climate change in a timely and equitable manner.

- 33. OCE's activities contribute to UNESCO's education programme in line with SDG 4, whose target 4.7 specifically addresses Education for Sustainable Development (ESD) and SDG 13, where target 13.3 makes explicit reference to climate education.
- 34. In line with the Paris Agreement and in the overall context of the 2030 Agenda for Sustainable Development, the work of the OCE is aligned with UNESCO's "Education strategy 2014-2021" and of the current "Global Action Programme (GAP) on Education for Sustainable Development", both emphasizing in particular the need for proper educational resources and teachers' professional development opportunities. The GAP aims "to generate and scale up action in all levels and areas of education and learning to accelerate progress towards sustainable development" and climate change is a thematic focus across all five Priority Action Areas of the Global Action Programme (GAP) on ESD¹⁸:

II.1.3.2. Contribution to Programmes in the Natural Sciences Sector (SC)

35. From the perspective of UNESCO's sector of Natural Sciences, the prospects for a potentially mutually benefiting relation between OCE and UNESCO are present. OCE's proposal includes quality components that will potentially add value to UNESCO's work in the field of sciences. The return on investment is guaranteed based on activities already planned by the OCE. Furthermore, there is a huge potential for the development of future activities i.e. through UNESCO's Man and the Biosphere (MAB) Programme and notably in its World Network of Biosphere Reserves (WNBR), as well as in the UNESCO Global Geoparks providing pilot sites where OCE's 'hands-on' training activities could take place.

36. The interest of the SC Sector in the recognition of OCE as UNESCO Category 2 Centre stems from the potential for a two-way collaboration:

- The OCE could become a key partner in presenting and advocating for UNESCO initiatives in climate change mitigation and adaptation at the field level.
- UNESCO Science programmes (e.g. MAB, IHP, IGCP, IBSP, LINKS) could provide scientific information and case studies of benefit in the production of pedagogical materials developed by the OCE.
- 37. The OCE has already established collaborations with several organisations associated with UNESCO: (i) CARISCIENCE; (ii) the International Science, Technology and Innovation Centre for South-South Cooperation (UNESCO-ISTIC); (iii) the World Federation of Engineering Organizations (WFEO) and (iv) the Third World Academy of Sciences (TWAS).
- 38. Given the OCE's current focus on Oceans, UNESCO's Intergovernmental Oceanographic Commission (IOC) would become a key partner, as their respective work is fully aligned. This respects the implementation modalities of the UNESCO Strategy for Action on Climate Change through the involvement of International and Intergovernmental UNESCO Programmes, such as the IOC and their networks of partners. Although UNESCO-IOC has its own functional autonomy and programme and its own network of C2C, the potential for joint collaboration between the OCE and the IOC within the framework of the UN Decade of Ocean Science for Sustainable Development is of particular relevance,

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¹⁸ (i) Advancing policy support for mainstreaming ESD into both education and sustainable development policies, (ii) Transforming learning and training environments through whole-institution approaches, (iii) Building capacities of teachers, educators and trainers, (iv) Empowering and mobilizing youth and (v) Accelerating sustainable solutions at local level in communities.

since climate change is one of the main areas of focus of the OCE's work. The focus of the OCE's is continuously being enhanced and will i.e. cover issues pertaining to Land Use in 2020.

39. As a UNESCO Category 2 Centre, the OCE would seek the establishment of partnerships with scientists and scientific institutions. Among these are the IPCC in Geneva, the new International Science Council, the InterAcademy Partnership for Science and the national Science Academies.

II.1.3.3. Contribution to the UNESCO Task Team on Climate Change

- 40. The UNESCO's Task Team on Climate Change is not a programmatic and implementing body, but rather a coordination mechanism, operating as a platform for collaboration between UNESCO's five major programmes and ensuring UNESCO's effective and coordinated responses and activities in this particular field. The recognition of the OCE as UNESCO Category 2 Centre is to be seen as a crosscutting opportunity going beyond the Education and Natural Sciences sectors, but also benefiting the other sectors represented in the Task Team on Climate Change. IOC-UNESCO is also part of the Task Team on Climate Change. The OCE would i.e. be in an ideal position to contribute to the coordination of UNESCO's activities at the annual Conference of the Parties (COP) meetings.
- 41. The OCE assigns a key role to the Social Sciences within the field of empowerment. Hence, OCE's work would contribute to the work of UNESCO in the Social and Human Sciences Sector (SHS), through its plan to integrate Social Sciences within the lesson plans of their Science Education projects, and to orient parts of their pedagogical resources to the teaching of social science subjects. The pedagogical resources produced by the OCE put a particular emphasis on societal issues of adaptation and mitigation. As for UNESCO's Culture sector, a box on the 'Cultural links between the people and the Ocean' will be included in all the resources of the OCE linked to Ocean, including references to intangible cultural heritage practices and to indigenous knowledge associated to the Oceans. A potential link with the work of the UNESCO's World Heritage Centre (WHC) may be established within this particular field. In parallel, the OCE aims to reinforce the relevance of indigenous knowledge in the development of its materials on issues such as navigation systems (star system, currents, and bird migrations).

II.1.4. PROGRAMMATIC LINKAGE BETWEEN THE CENTRE'S ACTIVITIES AND UNESCO'S ASPnet

- 42. By becoming a UNESCO category 2 centre, the OCE would be able to involve additional education networks, such as the UNESCO Associated Schools Network (ASPnet). "Sustainable Development and Sustainable Lifestyles" is one of the 3 Thematic Action Areas of UNESCO's ASPnet. As part of its programme, UNESCO is planning to launch a global ASPnet project with climate change as a priority focus area. Its main components include the dissemination of quality pedagogical materials and the delivery of teacher training. The OCE is in an ideal position to provide an invaluable input to this project, if established as a UNESCO Category 2 Centre.
- 43. The OCE also aims to benefit from and collaborate with the International Centre for UNESCO ASPnet (ICUA), recently established as a C2C in China, which aims to carry out, among others, training activities for school leaders and teachers on ASPnet-relevant topics, which could include climate change.

II.1.5. PROGRAMMATIC LINKAGE BETWEEN THE CENTRE'S ACTIVITIES AND OTHER EXISTING UNESCO CATEGORY 1 INSTITUTES AND CATEGORY 2 CENTRES

- 44. Once becoming a Category 2 Centre, the OCE foresees to act in synergy with the recently established International Teacher Education Centre in Shanghai (People's Republic of China) and other UNESCO Institutes and Centres for Education in fields related to the publication of pedagogical resources, the provision of free resources and training for teachers, to contribution to general UNESCO reports on sustainable education, the organization and participation in international and regional events.
- 45. The network of UNESCO Chairs and Institutes in Science can equally provide an ideal entry point for partnership with the OCE. The Abdus Salam International Centre for Theoretical Physics (ICTP), which is a UNESCO Category 1 Institute within UNESCO Natural Sciences, and the IHE Delft Institute for Water Education, as an existing UNESCO Category 2 Centre, are two good examples of potential partners within the field of Science.

II.2 NATURE, TYPE AND SCOPE OF ACTIVITIES

II.2.1. NATURE AND TYPE OF ACTIVITIES

46. The OCE focuses its work on the production of educational resources¹⁹, the implementation of professional development activities for teachers²⁰, and the structuration and coordination of a community of practice ²¹at an international scale.

47. In applying a whole-school approach to its activities, the OCE's conceptualization of Climate Change Education is aligned with UNESCO's view. Resources, modules or training developed by OCE must be sufficiently "bottom-up" to be adaptable to the different curricula. Through its activities, the OCE aims to complement the overall understanding of climate change in all its various dimensions, scientific, economic and social, both locally and globally. The OCE offers professional development activities that focus on scientific content, societal issues or classroom practices, and include immersion workshops that simulate research contexts, moments for analysis and exchange of practices, production workshops and field trips. In doing so, the activities of the OCE respect the educational principles established under Article 11 of the Declaration of Ethical Principles in Relation

¹⁹ In 2018, with the active participation of many of the scientific and educational partners in its network, the OCE operational team produced several educational resources: a summary of the IPCC report Global warming of 1.5°C, a conceptual scenario and two professional development protocols (on understanding the green house effect and on ocean and climate change). Moreover, during 2018, the OCE started working on a project that will be completed by the end of 2019 and will complement the upcoming IPCC report The ocean and cryosphere in a changing climate. The Office will issue: (i) a summary for teachers, conceptual frameworks, and professional development protocols, in line with the resources produced in 2018 for the IPCC Global warming of 1.5°C report; (ii) a complete educational project, made up of sequences of lessons proposing turn key activities; (iii) video clips; (iv) multimedia animations; (v) new resources for teacher professional development.

²⁰ Depending on audiences and needs, the Office for Climate Education offers professional development activities that can last from one to several days and focus on scientific content, societal issues or classroom practices. In 2018, the OCE organised 5 national or regional professional development activities, each lasting from 3 to 5 days, for a total of approximately 430 man-days of training.

²¹ The Office for Climate Education develops and coordinates a community of various actors involved in climate education: teachers, professional development providers, institutional staff, researchers, engineers, etc. This community aims to promote peer learning, experience sharing, and more generally the empowerment (autonomy, responsibility, sustainability) of its members through international exchanges. To this end, the OCE relies on existing networks, developed in recent years by both scientific and educational partners (including La main à la pâte, Eco-Schools, Experimento, Innovec, ECBI, IRD, IPCC, IAP...).

to Climate Change, in particular 3²² and 4²³.

48. The nature of the OCE's activities respects UNESCO principles. The OCE's activities balance out pedagogical and scientific levels. The pedagogical resources produced by the OCE rely on active teaching methods such as science education focused on investigation, project-based teaching, role-playing, or debating. They are multidisciplinary and oriented towards action and positive thinking, with an emphasis on societal issues of adaptation and mitigation. The OCE disseminates its materials at the international level, while localizing their training activities. The OCE further adapts its work in response to the needs identified by its network of international partners, i.e. the Eco-Schools network.

II.2.2. SCOPE OF ACTIVITIES

49. The action of the OCE and its network of more than 70 partners in more than 30 different countries focuses on the formal education system as provided by teachers in primary and secondary schools around the world. The OCE relies on existing networks, developed in recent years by both scientific and educational partners (including *La main à la pâte*, Eco-Schools, Experimento, Innovec, IRD, IPCC, IAP...). The OCE's main target includes teachers whose pupils are between the ages of 9 and 15 years. This recognizes the essential role of teachers, as advocated for by UNESCO. The focus shall be extended to universities in the future, thereby covering a wider range of educational levels, in line with UNESCO's mandate.

50. In terms of socioeconomic and geographical scope, particular emphasis is put on developing countries, which is aligned with UNESCO's work.

51. The sectoral focus of the OCE's work currently lies on oceans and cryosphere. This shall be linked to the work of the IOC-UNESCO. IOC-UNESCO initiated work on Ocean Literacy just 4 years ago, published an Ocean Literacy toolkit in December 2017 (disseminated through UNESCO's ASPnet at international level), and following the interest and endorsement from Member States, it is now fully established as a priority, with the long-term goal of seeing Ocean Literacy as part of formal curricula. Furthermore, IOC-UNESCO is planning to expand the scope of Ocean Literacy to cover policy, education levels beyond the formal education system. The potential for collaboration with the OCE is huge, in particular in terms of the United Nations Decade of Ocean Science for Sustainable Development (2021-2030). An Ocean Literacy campaign is to be developed as part of the Decade, and several regional workshops will take place. The OCE could become a key partner of the IOC-UNESCO's regional and national networks already established for Ocean Literacy. The IOC-UNESCO has already been an active partner in activities initiated by the OCE since its foundation. The IOC-UNESCO has i.e. delivered a presentation on the occasion of the First Scientific and Pedagogical Network meeting of the OCE.

52. UNESCO's Sandwatch will be one of the pilot projects by the OCE in the field of oceans. The OCE aims to make use of already existing educational resources on the theme of climate change, and considers Sandwatch as a valuable resource that should be promoted and adapted by its operational team and its network of partners. The OCE considers this resource focusing on coastal monitoring as a very good example of an integrated, multidisciplinary resource, fulfilling with their own criteria for pedagogical resources. In their view, these should aim to be adaptable to primary and secondary

²² 3. Promote formal, non-formal, and informal education with regard to climate change challenges and solutions, and encourage retraining for professionals in line with these objectives.

²³ Encourage educational institutions and educators to integrate these principles in their teaching activities from the preschool to university levels.

schools, based on active pedagogies, in line with up-to-date and rigorous science, adaptable to different contexts, action-oriented and free of copyrights.

- 53. By 2020, the focus of the OCE's work will widen to also include Land Use, while pursuing their work in the field of Ocean Science. In terms of Land Use, the OCE plans to produce lesson plans, videos, animations and summaries for teachers, and to implement local teachers' professional development actions. The aim of the OCE is to cover issues related to different ecosystems through its multiple range of activities. By 2021, the focus of the OCE's work will also make space to on-line teachers' professional development by means of MOOC's.
- 54. The OCE has identified 4 "Strategic Objectives (SO)" in its 5-years action-plan of the OCE, of which the following are aligned with UNESCO current priorities:
 - ➤ SO 1: Creating a set of educational resources based on IPCC reports. This is linked to the UNESCO Strategy for Action on Climate Change Thematic Focus Area B1 on "Ocean and Climate", in particular in terms of the main action on "Ocean and Cryosphere" resources, and to the Thematic Focus Area B8 on "Information and communication technologies and Climate", in particular in terms of the main action on "Website creation" resources
 - > SO 2: Training and support for teachers. This is linked to the UNESCO Strategy for Action on Climate Change Thematic Focus Area B8 on "Information and communication technologies and Climate", in particular through the "creation of MOOCs" and the delivery of "distant training sessions".
 - > SO 3: Creating a multi-scale network of climate-change educators. This is linked to the UNESCO Strategy for Action on Climate Change Thematic Focus Area B7 on "Local and Indigenous knowledge", in particular in terms of the main action on "Promotion of local projects".

II.2.2.1 Production of Teaching Resources

- 55. The OCE's work contributes to UNESCO's focus on knowledge production. It has already produced a wide array of resources in 2018, including:
 - Four educational resources, including protocols for professional development of teachers and a "Summary for teachers", accompanying the last IPCC report on a "global warming of 1.5°C".
 - A multilingual website (www.oce.global) devoted to the publication of the existing and future resources of the OCE and its network.
- 56. The OCE's materials are systematically translated into four languages (English, French, Spanish and German), thereby including the 3 main UNESCO languages. Furthermore, IPCC Special Reports are translated into other languages based on demand and availability of funding (Portuguese, Bahasa Indonesia, and Serbian). The OCE puts a lot of emphasis on the quality of translation being of very high quality.
- 57. The OCE further produces audio-visual materials (so far 10 videos), thereby complementing their hard-copy materials. This responds to UNESCO's view on the production of resources on multiple supports.
- 58. Some of the materials developed by *La main à la pâte* Foundation prior to hosting of the OCE will be used, updated, translated and disseminated by the latter. Prior projects by *La main à la pâte* are

of very high quality, but were more oriented towards policy makers, thus the need to be adapted to their effective use by teachers. UNESCO suggests that these resources are adapted and are presented in an action-oriented manner. These resources, so as to be implemented by the teachers in accordance with pupils' ages, must allow them to (i) acquire basic scientific knowledge on climate science; (ii) understand climate change in all its dimensions (scientific and societal), at local and global levels; (iii) develop their reasoning and critical thinking abilities; (iv) develop their creativity and innovation; (v) perceive the profound changes in behaviour required, such as sobriety, ethics and solidarity and (vi) take concrete action at the scale of their school, family and community.

- 59. The OCE promotes active pedagogies, such as inquiry-based science education, project pedagogy, role-play and debating, a strategy equally encouraged by UNESCO. Climate education must not only include knowledge of scientific facts but also an understanding of societal issues in adaptation and mitigation. This is why the resources, modules or training developed by OCE aim to be developed from a "bottom-up" approach, in order to be adaptable to the different curricula.
- 60. The OCE plans to develop pedagogical resources along the following lines, and pending availability of sufficient funding:
 - A "Summary and Tools for Teachers", provided alongside each Report and Summary for policymakers published by the IPCC
 - Progressions and conceptual scenarios
 - > Ready-to-go classroom curriculum
 - Participative citizen science projects
 - Story sharing (researchers, engineers, farmers, architects, businessmen/women, policymakers)
 - Multimedia simulators and animations
 - Serious games
 - Scientific documentation (thematic files, data, maps, figures)
 - Specific resources for the professional development of teachers on climate issues (training protocols, distance-training modules)
 - Methodological guides

The OCE plans to develop, with the assistance of its network of international partners, a Monitoring & Evaluation mechanism including means of verification, to allow monitoring of the appropriation and concrete implementation in the classroom of the resources produced by the OCE.

61. There is space for a collaborative approach with UNESCO in the development of the OCE's resources. Rather than a very large portfolio, the OCE favours the production of a limited number of high quality and widely shared resources. These resources are subsequently published on a multilingual website in English, French, German and Spanish, thereby enhancing their effective dissemination. Such materials could be disseminated to the ASPnet, notably in the framework of the implementation of the whole-school approach project "Getting climate-ready".

II.2.2.2 Professional development of Teachers

- 62. The OCE's work contributes to UNESCO's focus on capacity development of Teachers. It particularly aims at improving teaching practices.
- 63. The OCE has already conducted a wide array of actions in 2018 in the field of Teacher Training, in

particular 6 regional teacher trainers' workshops in Europe, Africa, South-East Asia and in the Pacific. UNESCO is ensured of the OCE's experience in this particular field.

- 64. Since their inception in 2018, activities of the OCE in the field of Teacher Training are wide and multi-faceted, responding to UNESCO needs. Specific activities can take the form of: (i) pedagogical face-to-face training sessions, (ii) distance training (webinars, MOOCs), (iii) scientific conferences on mechanisms and impacts of climate change, as well as mitigation or adaptation solutions; (iv) field visits (schools, laboratories, industries, farms, eco-centres) and (v) group work to prepare, analyse and / or implement activities in class.
- 65. Teacher training implemented by OCE are localized, as preconized by UNESCO. Teachers are invited, during training sessions, to design pedagogical projects adapted to their local needs and constraints.
- 66. The multiplier effect of the OCE's training activities is promoted. Training sessions at regional level are delivered to teachers from various countries gathering at a central venue, and then replicating the lessons learnt in their countries of origin.

II.2.2.3 Structuration and animation of a community of practice

- 67. The OCE's work aims to contribute to UNESCO's international provision of technical support and overall coordination of activities. The OCE commits to participate at UNESCO high-level events and workshops in the relevant areas of their expertise.
- 68. The OCE will aim to animate an international community of practice by offering pedagogical and methodological supports to educational institutions, particularly in developing countries, in order to accompany them in the implementation of climate education, carefully taking into account local and cultural specificities. This is fully aligned with UNESCO's model.
- 69. The OCE operates as a central hub of knowledge and information on climate education, aligned with UNESCO's Clearinghouse function. The OCE is the central structure within a network of 70 partners from 20 countries, articulating their work through the adoption of a common Charter of Action. It will continue organizing its annual OCE network week in order to promote common actions within the network.

II.2.2.4 Outreach and information-sharing activities

- 70. The Public Awareness component is a house-wide priority for UNESCO and particularly relevant to the roll-out of its activities. In this regard, OCE's activities will comply with article 86²⁴ of the UNESCO Strategy for Action on Climate Change on 'VII. Communication and Outreach'.
- 71. The OCE ensures participation at international events and science activities organized by UNESCO.
- 72. In terms of outreach, the production of Yearly Reports in English and French language is envisaged

²⁴ 86. Actions undertaken to implement the Strategy shall include communication and outreach components. These shall be fully consistent with the Strategy's mission statement "Changing Minds, Not the Climate" and its objective. UNESCO's web and social media facilities shall be mobilized in support of the Strategy. This will include the preparation of a set of core messages and graphical resources to be made available to interested Member States and implementation partners. A special brochure for the general public on UNESCO's climate change actions will be prepared and regularly updated.

to continue as of 2020 if the Centre is recognized as UNESCO Category 2 Centre.

- 73. The OCE's practices are regularly posted on the OCE website, thus ensuring their dissemination to a wider community. In the same manner, the OCE makes an effective use of its social media channels (Facebook, Twitter) for the same purpose.
- 74. Overall, the participation in public events is not part of the formal, pro-active portfolio of activities of the OCE. Activities in this field are not carried out in a systematic manner, but more on an individual, responsive basis.

II.3 INDEPENDENCE AND SUSTAINABILITY

75. The OCE is already operational and recognized as a major actor for its expertise in climate education. International and national institutions have entrusted OCE to organize several high-level workshops and teachers' professional development activities in 2018, 2019 and 2020 that are currently in planning phase.

76. The OCE relies on existing networks, developed by educational partners (including *La main à la pâte*, Eco-Schools, Experimento from the Siemens Foundation, Innovate, and IAP/Science Education Program). The animation of these networks is based on interpersonal meetings, social media networks and regular events with international visibility (high-level workshops, COP side events). This network can be easily expanded to the UNESCO Associated Schools Network (ASPnet) or the UNESCO International Science, Technology and Innovation Centre for South-South Cooperation (ISTIC in Kuala Lumpur), in view of the already established connection between both Centres.

II.3.1 LEGAL STATUS

- 77. The OCE is an entity without legal personality: The Convention establishing the OCE specifies that it does not have legal personality (Article 1), and provides for the management of OCE resources by the hosting foundation, La main \grave{a} la $p\hat{a}te$ (Article 14) and the signing of contracts by the host Foundation and not by the OCE (Article 15). "
- 78. As a French sheltered foundation, the OCE responds to the "principle of territoriality" of contributions (*Le principe de territorialité des dons*). A recent law changed the rules regarding the eligibility of international organizations for funding. UNESCO may receive funds from a French Foundation, with the exception of international organizations headquartered outside the European area, to which France is a party, provided that France participates in the development of their action programs and their governance. This includes specialized agencies of the United Nations: UNESCO, FAO or WHO.
- 79. The Office for Climate Education, the project's supporting structure, was launched in March 2018 in Paris, in the form of a foundation sheltered by the Foundation *La main à la pâte*, and whose founding members are the French National Research Institute for Sustainable Development (*Institut de Recherche pour le Développement*, IRD), *Météo France* and the association *Météo et Climat*.
- 80. The main international partners of the OCE include the Postdam Institute for Climate Impact Research, UNESCO-ISTIC, Innovée, Fondation Albert II de Monaco, STEM-Academia, the Eco-School network and the Siemens Foundation through Experimento. Their operational team is supported by French partners, such as Foundation La main à la pâte, Institut Pierre-Simon Laplace, Technical

Support Unit of the IPCC and the Académie des Sciences.

II.3.2 FINANCIAL SUSTAINABILITY

- 81. The financial sustainability aspects of the centre are aligned to the provisions set out in UNESCO's Integrated Comprehensive Strategy for Category 2 Institutes and Centres under Article A.3.1, stating that "the agreement for the establishment of an institute or centre as a category 2 institute shall be concluded for a definite time period, not exceeding six years". The OCE presents a detailed budget outline, based on the following working hypotheses: the project is to be carried out over 5 years (2019-2023), in order to accompany the 6th Assessment Report of the IPCC.
- 82. OCE has a total budget of 3,845,964 € for the upcoming 5-year period, provided both by public (one third) and private (two-thirds) funds. Despite its young age, the OCE is already supported by several internationally recognised organizations, and has managed to ensure a stable financial support over the next 5 years. This amount includes funds that are to be transferred from OCE to local partners. This budget allows the OCE to launch pilot actions on resource production and teacher training.
- 83. The funding from the Fonds Français pour l'Environnement Mondial (FFEM) constitutes the biggest tranche (1.101.000 € or 28.5% of the total amount). Other funding sources of the OCE are (i) Siemens Foundation (371.000 €), (ii) Fondation Luciole de l'Institut de France (338.000 €) (iii), Labex-IPSL (200.000 €), (iv) Fondation Prince Albert II de Monaco (149.000 €), and (v) Météo France (91.000 €). The OCE is currently in negotiation with: (i) KR foundation, (iii) the French Ministry of Ecology, (iv) Local partners and (v) Others (IAP, AFD and various foundations).

II.3.3 GOVERNANCE

- 84. The Office for Climate Education is a sheltered foundation, registered in France, under the aegis of the Foundation *La main à la pâte*. The OCE has its self-standing financial and strategic governance, at the heart of *La main à la pâte*. The OCE has an operational governance structure bringing together its main partners. Its founding members are: (i) The Foundation *La main à la pâte*, itself under joint governance of the French *Académie des sciences*, the *École normale supérieure* (Paris) and the *École normale supérieure* (Lyon); (ii) the *Institut de Recherche pour le Développement* (IRD); (iii) *Météo-France* and (iv) *Association Météo & Climat*. Other additional founding members are likely to join the OCE.
- 85. As a sheltered foundation, the OCE is legally represented by the Foundation *La main à la pâte*. The OCE has its own staff and budget, as well as its own governance bodies. Two options are being considered at this stage: (i) Giving full autonomy to OCE, and relying on UNESCO's endorsement for international wide recognition; and (ii) remaining under the current status, within the body of La main à la pâte.
- 86. Professor Pierre Léna, member of the French Académie des Sciences, is the current President of the Office for Climate Education. With many actions and publications, in France and worldwide, he served the cause of science dissemination to all sorts of public, and paid special attention to education. This, in itself is a guarantee that UNESCO's interdisciplinary vision will be applied. No definitive formal decision has been taken yet, but the plan is to hand over the Presidency to Mr. Eric Guiyaldi by the end of 2019 or in 2020, but this will depend on UNESCO's final decision on the recognition as a Category 2 Centre. Mr. Eric Guilyardi is an Oceanographer and climate scientist at the

Institut Pierre Simon Laplace and at the association Méteo & Climat, and currently co-chairs the Scientific and Pedagogical Committee (SPC) of the OCE.

- 87. The OCE Strategic Board is responsible for managing the OCE and meets twice a year. Professor Pierre Léna is the Chair of the Strategic Board, and Eric Guilyardi will be the new Chair. The OCE Strategic Board has been consulted on UNESCO's potential involvement if recognized as a UNESCO Category 2 Centre. In this regard, the OCE is flexible in terms of UNESCO presence in the Strategic Board. The Strategic Board has even been involved in the development of the proposal for recognition as Category 2 Centre. If invited to become a Category 2 Centre, the OCE would include at least one representative of UNESCO in its Strategic Board, and possibly representatives of France and other UNESCO Member states, thus complying with the clauses on D.1 on Governance of the Integrated Comprehensive Strategy For Category 2 Institutes and Centres Under the Auspices of UNESCO, in particular D.1.3²⁵).
- 88. The Scientific and Pedagogical Committee (SPC) is co-chaired by Eric Guilyardi and Cliona Murphy. It is composed of 18 founding and qualified members (9 members from the Scientific Committee and 9 members from the Pedagogical Committee). The members of the SPC are appointed by the Strategic Board, which ensures that its composition is balanced among scientific disciplines and pedagogical experts and partners involved in operational actions in different regions of the world. The SPC organizes three meetings a year. As a UNESCO Category 2 Centre, the OCE would invite representatives of UNESCO to its Scientific and Pedagogical Committee, i.e. one scientist and one representative of the UNESCO Associated Schools Network (ASPnet), in compliance with the clauses of the Integrated Comprehensive Strategy For Category 2 Institutes and Centres Under the Auspices of UNESCO, in particular point D.1.3.
- 89. The Executive Secretariat is the main operational structure of the OCE and conforms the "working team" of the Foundation.
- 90. In terms of Government involvement, the OCE has established two partnerships, namely with the Ministère de l'Éducation Nationale et de la Jeunesse and the Ministère de la Transition Écologique et Solidaire. Through the partnership with the FFEM, 4 other line Ministries (Ministère de l'Économie et des Finances; Ministère de l'Europe et des Affaires Étrangères; Ministère de l'Enseignement Supérieur et de la Recherche; et Ministère de l'Agriculture et de l'Alimentation) are also involved. The Government support is ensured through letters of support (Ministère de Transition Écologique and Ministère de l'Éducation national et de la Jeunesse).

II.3.4 HUMAN RESOURCES

91. In order to successfully carry out its missions, the OCE team must include an adequate number of staff with multiple skills: project management, educational engineering, scientific expertise, communication. Since the OCE project relies both on a small permanent operational team, this will need to be supported by an international network of operational partners. Hence, UNESCO's involvement would add considerable value to this network of partners, through the provision of technical support and the liaison to its extensive network of international partners. Actions shall be spread through the OCE's local networks, and accompanied by the central OCE team.

92. The Executive Secretariat target size consists of a team of 5 full-time people, whose profile

²⁵ UNESCO must be represented as a full member in the governing body of each category 2 institute or Centre.

includes a CEO, a Science Officer, an Education Officer, as well as an Executive Assistant and a Network Coordinator. Currently, 3 full-time employees form the Executive Secretariat. Mr. David Wilgenbus is the current Chief Executive Officer (CEO) of the OCE. Ms. Lydie Lescarmontier is the Science Officer and Nathalie Morata the Education Officer. 1 trainee and 2 other positions already identified may be added subject to the availability of additional funding. However, the staff size shall always remain below the number of 10.

- 93. The OCE operational team is composed of experts in climate science, Education for Sustainable Development and project management. This is guarantee that UNESCO's overall vision is covered. It works on an agile and bottom-up way, and is assisted by a Scientific and Pedagogical Committee gathering 18 experts from all the continents.
- 94. The staff the OCE operational team is multilingual, speaking English, French, Spanish and German, thus in a position to run their international activities smoothly and to provide high-quality service to all their network of international partners.

II.3.5 LOCATION AND PREMISES

- 95. The OCE Executive Secretariat is located at the *Institut Simon Laplace* (IPSL) on its Jussieu campus at the Sorbonne University in Paris, in order to benefit from: (i) the administrative support and pedagogical expertise of the *La main à la pâte* Foundation; (ii) the scientific expertise of IPSL and the IPCC Group I Technical Support Unit; (iii) the proximity of many institutions which are potential partners of the OCE project (Ministry of Ecology, Ministry of Education, Ministry of Foreign Affairs, Academy of Sciences); (iv) the leading role of France in the follow-up of the post Paris agreement and in North-South cooperation activities.
- 96. The *Institut Simon Laplace* (IPSL) is a federation of laboratories composed of 9 laboratories and hosts a total staff of approximately 1500, which represents half of the French expertise in climate science. All those 9 laboratories work together on climate modelling, observations, centralized communication on science mediation and on advice to the French government (e.g. regarding the COP, UN meetings). Although the nature of its work is wide and cross-cutting, within this network of 9 networks, the OCE is considered currently as the laboratory specialized on the study of Ocean. The IPSL has no juridical entity. The IPSL management strongly support the OCE project.
- 97. The future establishment of international OCE antenna offices has been evoked, but no decision has been taken yet.
- 98. In line with the international movement of cutting down on carbon emissions, the OCE promotes a philosophy of virtual meetings via Skype with its network of partners, instead of constantly travelling and holding presential meetings, thereby leading by example.

II.4 COOPERATION AND PARTNERSHIPS

99. The OCE aims at setting up numerous operational partnerships with local actors in different regions of the world, which will be in charge of the co-production, adaptation and dissemination of resources, as well as the organisation of local professional-development actions for teachers. The establishment of this vast network is carried out in successive phases throughout the duration of the project. This initial network will be gradually enriched by institutions from new countries, mainly from developing countries. UNESCO is in a position to contribute and enrich this international network.

100. As of 2019, approximately 70 organisations have expressed their interest to collaborate with the OCE, and 37 have already conducted joint operational actions. Some of the local operational partners have set up well-structured international educational networks, such as Eco-Schools (gathering more than 60,000 schools worldwide), Experimento and Innovate. UNESCO through its Associated Schools Network (ASPnet) could significantly increase the scope of these programmes.

II.4.1. COOPERATION WITH OTHER UNESCO AND UN-SYSTEM ENTITIES

101. The Office for Climate Education has already established collaborations with several organisations associated with UNESCO: (i) CARISCIENCE; (ii) the International Science, Technology and Innovation Centre for South-South Cooperation (UNESCO-ISTIC); (iii) the World Federation of Engineering Organizations (WFEO) and (iv) the Third World Academy of Sciences (TWAS).

102. The proposal for the recognition of the OCE as Category 2 Centre is fully aligned with the UNESCO Strategy for Action on Climate Change in terms of collaboration with (D) UNESCO Centres and Chairs on point 79²⁶, (E) UNESCO National Commissions on point 80²⁷, (G) NGOs, Youth and ASPnet, (H) private sector on point 83²⁸ and (I) Intersectoral UNESCO Task Team on Climate Change on point 84²⁹.

103. The OCE seeks the collaboration with additional UNESCO education networks, such as the UNESCO Associated Schools Network (ASPnet), Institutes and Centres, as well as with several organizations associated with UNESCO in the domain of Education and Sciences throughout the world, including UNESCO Chairs, UNESCO Clubs and NGOs associated with UNESCO.

104. The OCE aims to collaborate with the whole list of programmes, networks and initiatives that UNESCO leads and is active on climate change, including: (i) Global Action Programme on ESD (GAP); (ii) Local and Indigenous Knowledge Systems Programme (LINKS); (iii) Sandwatch; (iv) UN Alliance on Action for Climate Empowerment; (v) UNESCO Associated Schools Network (ASPnet); (vi) World Heritage Centre (WHC); (vii) Man and the Biosphere (MAB) Reserve Programme; and (viii) UNESCO **Global Geoparks**

105. A number of opportunities exist for cross-fertilization with other UNESCO Category 1 Institutes and Category 2 Centres, such as with the International Sustainable Energy Development Centre in Moscow (Russian Federation), the International Centre for South-South Cooperation in Science, Technology and Innovation (ISTIC) in Kuala Lumpur (Malaysia), the Centre for Water for Sustainable

²⁶ The full range of relevant UNESCO category 1 and 2 centres and UNESCO Chairs will be encouraged to engage in the implementation of the Strategy.

²⁷ Ultimately, the success of the Strategy will depend on the effective mobilization of actors and stakeholders at the national levels. This implies that UNESCO National Commissions and national committees linked to UNESCO intergovernmental programmes, as well as Permanent Delegations to UNESCO, have an important role to play, including through the design and execution of projects financed under the UNESCO participation programme, in the implementation of the Strategy. UNESCO Mexico is already a partner

²⁸ UNESCO will seek to establish or maintain solid partnerships with relevant private sector partners and branch organizations esteemed for their climate change and sustainable development credentials in industry, business and finance. ²⁹ Established by the Director-General, the UNESCO Task Team on Climate Change is charged with facilitating intersectoral cooperation and coordination related to the implementation of the UNESCO Strategy for Action on Climate Change, and related monitoring. The Task Team, led by ADG/SC, is supported by two co-chairs (in SC/MAB and in SHS). The Task Team also ensures coordination, coherence and synergies with the overall United Nations system in relation to climate change, including the UNFCCC and the IPCC and contributes to resource mobilization efforts to scale up UNESCO climate actions.

Development and Adaptation to Climate Change (WSDAC) in Belgrade (Serbia), as well as with other similar institutions created and operated by other organizations of the United Nations system.

106. The publication by the OCE of "Summaries for teachers", accompanying the reports of the Intergovernmental Panel on Climate Change (IPCC), clearly responds to the directive of UNESCO and the United Nations Framework Convention on Climate Change (UNFCCC) to take into account the assessments of the IPCC, which is the international body established to evaluate the science related to climate change. This contribution of the OCE to the UN work through UNESCO will specifically address the following common Core Principles for a United Nations System-Wide Approach to Climate Change Action: (C) Advance and scale-up ambitious and transformative action on climate change, (F) Base United Nations system climate action on the best climate science, data and knowledge and (G) Build and strengthen partnerships, including with non-state actors.

107. The staff at OCE is already well aware of initiatives supported by UNESCO such as the Ice Memory project, an initiative of the Université Grenoble Alpes (France) in collaboration with Ca' Foscari, University of Venice (Italy) and the University of Bern (Switzerland), that aims to collect, analyse and store samples of ice cores from melting glaciers from around the world in order to safeguard their high scientific value. By contributing to enhanced understanding of past climates and civilizations, this scientific information generated through the Ice Memory initiative is also of high pedagogical value. At its 205th session, the Executive Board encouraged the Director-General to explore further the synergies that can be generated in conjunction with the Ice Memory initiative (205 EX/Decisions). Collaboration among OCE, the Ice Memory Initiative and UNESCO is an interesting example of positive synergy.

II.4.2. THE ROLE AND CONTRIBUTION TO BE PROVIDED TO UNESCO

108. The OCE can contribute to UNESCO's uniquely multidisciplinary expertise and outreach in climate change education, in particular through the UNESCO for COP (U4C) Partnership Initiative working to mobilize and engage the scientific, educational media and private sector communities, as well as the public at large, to enhance climate change awareness and action. Modalities for U4C support include specifically the mobilization of UNESCO Centres.

109. Becoming a UNESCO Category 2 Centre would provide the OCE with a unique opportunity to collaborate with other UNESCO partners, centres and institutes, such as: (i) the International Centre for the UNESCO ASPnet (ICUA); (ii) the International Institute for Educational Planning (IIEP); (iii) the International Institute for Capacity Building in Africa (IICBA); (iv) the Regional Bureau for Education in Latin America and the Caribbean (OREALC); (v) the International Centre for the Education of Girls and Women in Africa (AU/CIEFFA); (vi) the UNESCO Mahatma Gandhi Institute of Education for Peace and Sustainable Development (MGIEP); (vii) the IHE Delft Institute for Water Education and (viii) the Sandwatch foundation.

110. If recognized as a UNESCO Category 2 Centre, the OCE may use UNESCO designated sites (World Heritage sites, Biosphere reserves, UNESCO Global Geoparks) as pilot sites for its activities, as specified within the Implementation modalities of the UNESCO Strategy for Action on Climate Change under its Point C.

111. Becoming a UNESCO Category 2 Centre would provide the OCE with a unique opportunity to collaborate with other UNESCO partners, centres and institutes, such as: The United Nations Alliance of Climate Change: Education, training and public awareness; gathering UNESCO, UNEP, UNFCCC,

UNICEF, UNITAR and WHO.

112. The further elaboration of joint work has been already discussed between the OCE and some UNESCO field offices such as the UNESCO Mexico Office, which is already a facilitating partner of the OCE in the UNESCO Latin America and the Caribbean region, i.e. by accompanying OCE's local partners in terms of gender-sensitive language adaptation during the conducting of various training sessions.

III.CONCLUSION AND WAY FORWARD

113. Relevance and potential impact: A clear programmatic linkage exists between the activities of the Office for Climate Education (OCE) and UNESCO's purposes as set forth in its Constitution and the strategic programme objectives and priorities, including the global priorities of UNESCO, as well as sectoral programme priorities. The global, regional, subregional or interregional relevance and impact (actual or potential) of the OCE is clear, in particular the complementarities between its activities and those of other existing UNESCO centres with similar focus. The OCE is expected to contribute to UNESCO's role in strengthening the provision of policy advice and capacity building in UNESCO Member States and to promote South-South cooperation. In terms of the UNESCO Strategy for Action on Climate Change, the establishment of the OCE as UNESCO Category 2 Centre will contribute to all principles and criteria for UNESCO Action: (A) Meet the needs of Member States in relation to their efforts to realize their Nationally Determined Contributions (NDCs) under the Paris Agreement, as well as SDG 13 of the 2030 Agenda for Sustainable Development, in the overall context of documents 37 C/4, in particular its 2nd overarching objective on Equitable and sustainable development, primarily in terms of its Strategic Objective (SO) 5³⁰, but also in terms of SO 2³¹ and SO 4³² and 39 C/5, in particular with a view on SO 2³³ and SO 3³⁴ of MP I (Education) and SO 5³⁵ of MP II (Natural Sciences) (B) Draw on, support and be consistent with relevant existing UNESCO programme and priority strategies and action plans; (C) Raise awareness on climate change as a cross-sectoral and interdisciplinary issue; (D) Focus on activities that can be scaled-up in order to ensure a seamless, coherent and structured combination of regular and extra budgetary sources; and (E) Ensure synergies with the overall United Nations system.

114. Nature, type and scope of activities: If recognized as a UNESCO Category 2 Centre, the overall scope of the activities of the OCE ensures its contribution to UNESCO's two global Priorities on Gender Equality and Africa, as well as to Small Island Developing States (SIDS) and Youth. It would, in particular, contribute to the following Thematic Action Focus Areas of the UNESCO Strategy for Action on Climate Change: (A) Supporting Member States to develop and implement climate change education and public awareness programmes and policies; (B) Promoting interdisciplinary climate knowledge and scientific cooperation for climate change mitigation and adaptation; and (D) Supporting inclusive social development, fostering intercultural dialogue. In terms of outputs, as a UNESCO Category 2 Centre the OCE would significantly contribute to knowledge (co-) production and dissemination, as well as to Policy advice. At a broader level, OCE's work would respond to the call on UNESCO Member States to take urgent action to combat climate change and its impacts through education, sciences, culture and information and communication, in line with their respective National Determined Contributions (NDCs) under the COP21 Paris Agreement.

³⁰ Promoting international scientific cooperation on critical challenges to sustainable development.

³¹ Empowering learners to be creative and responsible global citizens

³² Strengthening science, technology and innovation systems, and policies nationally, regionally and globally.

³³ Empowering learners to be creative and responsible global citizens

³⁴ Leading and coordinating the Education 2030 Agenda

³⁵ Promoting international scientific cooperation on critical challenges to sustainable development.

115. Independence and sustainability: In its proposal for UNESCO Category 2 Centre recognition, the OCE presented the structure of its governance, emphasizing its own operational autonomy, staff and budget, as well as its own governance bodies, which maintain operational and strategic contact with the bodies of the umbrella Foundation being the legal entity. At the time of the Category 2 Centre Proposal, the OCE was a very small structure of 2 people (now growing to 7), thus it did not seem reasonable to immediately create a legal entity. On the other hand, the anchoring in a highly respected and experienced, well-staffed (over 20 full-time employees) foundation of scientific cooperation (La main à la pâte Foundation), founded and governed by the French Académie des sciences and two other prestigious science institutions, seemed optimal. The OCE is indeed integrally applying to climate education the inquiry pedagogy tools developed and promoted by La main à la pâte. These arguments explain why the OCE proposal is deviating from the section D.1.1 (Governance) and from the Model Agreement regarding Article 4.2 (Legal status). ³⁶ of UNESCO's Integrated Comprehensive Strategy for UNESCO Category 2 Centre. The future autonomy of the OCE, in terms of its independence from La main à la pâte Foundation is not yet guaranteed, and would need to be agreed upon. Two options are being considered at this stage:

- Fiving full autonomy to OCE, and relying on UNESCO's endorsement for international wide recognition. In terms of administrative follow-up work, the independence of the OCE would even ease the workload of La main à la pâte Foundation. Furthermore, the issue of the OCE's autonomy still needs to be addressed with the Fonds Français pour l'Environnement Mondial (FFEM), which is currently the main donor of the OCE, thereby posing a challenge. The FFEM always request cofunding of its sponsored activities. The plan to reach full autonomy should be further detailed by the OCE with a specific timeline. This point would need to be brought to the attention of the Executive Board as a deviation to the UNESCO Strategy for Category 2 Institutes and Centres, with a plan to regularize the OCE's situation.
- PRemaining under the current status, legally dependant, and within the body of *La main à la pâte*. The OCE's donors strongly value the support of *La main à la pâte*, as it adds a lot of credibility to the OCE's activities. *La main à la pâte* has 25 years of experience, so this back-up is a guarantee of experience within the fields of science education and international relations. Through the support of *La main à la pâte*, as a guarantee of seriousness and independence support is ensured with respect to the French Government. Professor Pierre Léna, President of the OCE, is supportive of this idea as a temporary status, until OCE has grown in terms of its relation with the IPCC.

116. **Funding**: The current funding of the OCE is appropriate to carry out its activities in a smooth and efficient manner. However, no plans exist yet beyond the 5-years scenario, as the current plan for the OCE project is to be carried out over a period of 5 years (2019-2023), in order to accompany the 6th Assessment Report of the IPCC. However, this is compliant with article A.3.1 of the Integrated Comprehensive Strategy for Category 2 Institutes and Centres under the Auspices of UNESCO, stating that "The agreement for the establishment of an institute or centre as a category 2 institute shall be concluded for a definite time period, not exceeding six years". The sustainability of the OCE project is facilitated by the involvement of strong international partners, having demonstrated their own capacity to carry out large-scale educational projects and to mobilize local funding. However, OCE is financed by entities other than the Government of the French Republic, and this deviation (from Article 9 - Contribution by the Government) of the Model Agreement of UNESCO's Integrated Comprehensive Strategy for Category 2 Institutes and Centres should be brought to the attention of

³⁶ Each category 2 institute and centre must be independent of UNESCO and have the legal capacity necessary for the exercise of its function under the laws of the country in which it is located.

the Executive Board.

- 117. **Cooperation and partnerships**: The OCE has a strong relation with Science Academies in the world, united under the InterAcademy Partnership for science (IAP). These are a channel that is extremely interesting for the OCE and for UNESCO, because they are (i) independent from Government; (ii) able to deliver a scientific message to the Government and to schools, adding value and complementing the gaps in the additions to science curricula by Ministries of Education, and (iii) add to UNESCO's scheme, which until now mainly relies on Government institutions and line Ministries, and not enough on the network of Science Academies.
- 118. Given the quite unique **alignment** of the missions of the OCE with the cross-sectoral UNESCO goals in terms of climate education, the case for the OCE to become a UNESCO Category 2 Centre is compelling.

IV. RECOMMENDATIONS

- 119. **Contribution to UNESCO's work**: Acting in synergy with the recently established International Centre for UNESCO ASPnet (ICUA) and other UNESCO institutes, once becoming a Category 2 Centre, the OCE contribution to UNESCO missions could be effective in several ways such as: (i) publication of guidelines for stakeholders, (ii) dissemination of open and free resources and training for teachers, notably of ASPnet; (iii) contribution to general UNESCO reports on sustainable education; (iv) organisation and participation in international and regional events; or (v) development of established partnerships with scientists and scientific institutions. Among these are the IPCC in Geneva, the new International Science Council, the InterAcademy Partnership for Science and the national *Académies des Sciences*.
- 120. **Geographical scope**: In order to ensure alignment of the OCE's work with UNESCO's Global Priority Africa, the OCE will thus need to develop the scope and outreach of its activities in Africa through its current network of partners in the region.
- 121. **Sectoral scope**: UNESCO programmes under the Natural Sciences Sector to be involved in this potential partnership with the OCE, in view of their programmatic relevance, include the Division of Ecological and Earth Sciences (EES), the Divisions on Water Sciences and the Division on Science Policy and Capacity-Building. Within the Education sector, possibilities need to be explored for future joint work within the field of Higher Education (HED).
- 122. **International partnerships**: Areas of proposed collaboration exist with existing education networks inside UNESCO (ASPnet) and outside the organization (FEE's Eco-Schools Network) but could be expanded to other networks such as the network of Regional Centres of Expertise (RCE's) under the Institute of Advanced Studies of the United Nations University (UNU-IAS).
- 123. **Funding**: No long-term plans exist beyond the 5-years scenario of the OCE. The current financial plan runs from 2019-2023. As such, an agreement for the recognition of the OCE as UNESCO C2C is recommended over a period of 4-years.
- 124. **Governance**: The governance of the Office for Climate Education requires internationalization. All UNESCO Category 2 Centres, with at least a sub-regional scope, are expected to ensure that.

125. **Weaknesses**: Occasionally, the General Conference accepts proposals for the establishment of UNESCO Category 2 Centres, while still not complying with the whole range of criteria. However, in those cases, these aspects needs to be specifically addressed as 'in the process' within the proposal. In the case of OCE, the centre does not comply with the recommendation indicating that a prior existence of a minimum of 3 years is preferred, since the OCE was created in 2018. This said, OCE is very much the product of the *La main à la pâte* that has a several decades long track-record of promoting science-based education.

V. ANNEXES

V.1. ANNEX - METHODOLOGICAL NOTE

The proposed methodology for data collection towards the drafting of this study was two-fold:

- 1. Desk study of relevant documents and on-line resources: Information was compiled on other existing UNESCO Category 2 Centres, their nature, buy-in, means of governance and finance. The complementarity of the proposed Centre with other category 2 entities or with other similar institutions created and operated by the UN system was analysed. Similarly, its relevance in terms of unique nature and added value to the work of other Centres was assessed. The justification for the establishment of the Centre was based on framework documents of the Office for Climate Education (OCE), as well as UNESCO's documents on Education for Sustainable Development (ESD) and Climate Change. Additionally, with the support of the two UNESCO staff members (ED/PSD/ESD and SC/EES/ESP), the capacity of the Centre to complement UNESCO's ESD work as well as that of other sectors was assessed. In particular, areas of collaboration with existing education networks inside UNESCO (i.e. ASPnet) and outside the organization was explored.
- 2. On-site interviews were conducted with relevant designated officers of the Office for Climate Education (OCE) and UNESCO Education and Natural Sciences sectors. Additional interviews via Skype were conducted with Professor Pierre Léna, President of the OCE, and partners organizations the OCE Centre cooperates and collaborates with.

V.2. ANNEX – LIST OF PERSONS INTERVIEWED

UNESCO:

- Mr. Abdoul Wahab Coulibaly (UNESCO/ED/PSD/ESD)
- Mr. Peter Dogsé (UNESCO/SC/EES, Co-chair, UNESCO Task Team on Climate Change)
- Mr. Salvatore Arico (Head, Ocean Science Section, UNESCO IOC)
- Ms Sabine Detzel (Chief, UNESCO/ASPnet)
- Mr. Bernard Combes (UNESCO/ED/PSD/ESD)
- Ms Miriam Tereick (UNESCO/ED/PSD/ESD)
- Ms. Francesca Santoro (Programme Specialist, IOC-UNESCO)

OCE:

- o Prof. Pierre Léna (President and Chair of Strategic Board, OCE)
- Mr. David Wilgenbus (Chief Executive Officer, OCE)
- o Mr. Eric Guiyaldi (Co-Chair Scientific and Pedagogical Committee, OCE)

Ms Lydie Lescarmontier (Science Officer, OCE)

Others:

 Dr. Anwar Rumjaun (Associate Professor, School of Science and Mathematics, Mauritius Institute of Education) – Partner Organization of the OCE

V.3. ANNEX – LIST OF ACRONYMS

ADG Assistant Director-General

AFD Agence Française de Développement

ASPnet UNESCO Associated Schools Project Network

C2C Category 2 Centres

CCE Climate Change Education
CEO Chief Executive Office

CESAME Centres for Education to Science in Africa, the Mediterranean and Europe CIEFFA International Centre for the Education of Girls and Women in Africa

COP Conference of the Parties

EES Division of Ecological and Earth Sciences
FAO Food and Agricultural Organisation

ER Expected Result

ESD Education for Sustainable Development
FFEM Fonds Français pour l'Environnement Mondial

GAP Global Action Programme

IAP InterAcademy Partnership for Science
IBSP International Basic Sciences Programme
ICUA International Centre for the UNESCO ASPnet

IGCP International Geoscience Programme

IHE International Institute for Infrastructural, Hydraulic and Environmental Engineering

IHP International Hydrological Programme

IICBA International Institute for Capacity Building in Africa
 IIEP International Institute for Educational Planning
 IOC Intergovernmental Oceanographic Commission
 IPCC Intergovernmental Panel for Climate Change

IPSL Institut Pierre Simon Laplace

IRD Institut de Recherche pour le Développement

ISTIC International Centre for South-South Cooperation in Science, Technology and Innovation

LINKS Local and Indigenous Knowledge Systems Programme

MAB Man and the Biosphere Programme
MAST Measure, Analyse, Share and Take action

MGIEP Mahatma Gandhi Institute of Education for Peace and Sustainable Development

MIE Mauritius Institute of Education MOOC Massive Open Online Course

MP Major Programme

OCE Office for Climate Education

OREALC Regional Bureau for Education in Latin America and the Caribbean

PSD Peace and Sustainable Development

S.A.M.O.A. SIDS Accelerated Modalities of Action Pathway

SC Natural Sciences Sector

SDG Sustainable Development Goals SIDS Small Island Developing States

SO Strategic Objective

SPC Scientific and Pedagogical Committee TWAs Third World Academy of Sciences

UN United Nations

UNEP United Nations Environment Programme

UNESCO United Nations Educational, Scientific and Cultural Organisation UNFCC United Nations Framework Convention on Climate Change

UNICEF United Nations Children's Fund

UNITAR United Nations Institute for Training and Research WFEO World Federation of Engineering Organisations

WHC World Heritage Centre WHO World Health Organisation

WNBR World Network of Biosphere Reserves

WSDAC Centre for Water for Sustainable Development and Adaptation to Climate Change