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Item **27** of the provisional agenda

PROPOSAL FOR THE PROCLAMATION OF AN INTERNATIONAL DAY OF LIGHT

SUMMARY

This item has been included in the provisional agenda of the 200th session of the Executive Board at the request of Ghana, Mexico, New Zealand and the Russian Federation.

The corresponding explanatory note is included in the document.

Action expected of the Executive Board: Proposed decision in paragraph 14.

EXPLANATORY NOTE

Background

I. INTRODUCTION AND MOTIVATION

1. The International Year of Light and Light-based Technologies 2015 (IYL2015) was adopted at the United Nations General Assembly (A/RES/68/221) and led by UNESCO (37 C/Res.25) through its International Basic Sciences Programme. The operational secretariat of IYL2015 was hosted at the UNESCO category 1 institute, the Abdus Salam International Centre for Theoretical Physics (ICTP).

2. Under the leadership of UNESCO, IYL2015 brought together hundreds of national and international partners to implement a wide range of worldwide activities including: awareness-raising, capacity-building, education and outreach, humanitarian projects. IYL2015 has had highly significant impact and quantifiable outcomes, with an estimated 10,000 activities in 148 countries and 18,000 mentions in the world's media from 120 countries. The audience reached by the International Year of Light is estimated to be over 100 million.

3. The purpose of an International Day of Light will be to provide an annual focal point for the continued appreciation of the central role that light plays in the lives of the citizens of the world in areas of science, culture and art, education, sustainable development, and in fields as diverse as medicine, communications and energy.

4. In addition, the International Year of Light and Light-based Technologies 2015 built many new bridges between science and culture, and forged new links between decision makers, industry leaders, scientists, non-governmental organizations and the public at large. An International Day of Light will allow all these links to be maintained and strengthened, responding to the critical need for improved dialogue between citizens, scientists, and policy-makers.

5. An International Day of Light will provide an enduring follow-up of the achievements of the International Year of Light in raising the profile of science and technology, and its application towards stimulating education, improving the quality of life worldwide, and achieving the Sustainable Development Goals.

II. THE IMPORTANCE OF LIGHT, LIGHT SCIENCE AND TECHNOLOGY

6. Light plays a central role in human activities. On the most fundamental level, through photosynthesis, light is at the origin of life itself, and the many applications of light have revolutionized society through medicine, communications, entertainment and culture.

7. Industries based on light are major economic drivers, and light-based technologies directly respond to the needs of humankind by providing access to information, promoting sustainable development, and increasing societal health and well-being.

8. Light-based technologies are increasingly providing solutions to global challenges in, inter alia, energy, education, agriculture, and community health. Applications of light-based technologies improve the quality of life in the developing world, and are key enablers to achieving the Sustainable Development Goals.

9. As light becomes the key cross-cutting discipline of science and engineering in the twenty-first, it is essential that the importance of the scientific study of light and the application of light-based technologies for global development is fully appreciated by the citizens of the world. It is equally vital that the brightest young minds continue to be attracted to scientific and engineering careers in this field.

III. OUTCOMES OF AN INTERNATIONAL DAY OF LIGHT

10. An International Day of Light will see coordinated activities taking place worldwide, which will contribute to achieving numerous outcomes:

- Improve public understanding of how light and light-based technologies touch the daily lives of everybody, and are central to future global development;

- Build worldwide educational capacity through activities targeted on science for young people, help address issues of gender balance and focus in particular on developing countries and emerging economies;

- Promote the importance of light-based technology in sustainable development particularly in Healthcare, Agriculture and Communications so as to enable access to educational opportunities and for improving the quality of life worldwide;

- Promote awareness of the interdisciplinary nature of twenty-first century science, and emphasize how interactions between different thematic areas of science will be increasingly needed in future research and education;

- Highlight and explain the intimate link between light and art, enhancing the increasing role of optical technology in the preservation of cultural heritage;

- Enhance international cooperation in fundamental science, research & development and education, by coordinating activities between learned societies, educational establishments and industry;

- Celebrate the role of light in science and culture across all continents of the globe through raising awareness of important historical figures, including those particular scientists celebrated during the International Year of Light and Light-based Technologies 2015: Ibn Al Haytham, Augustin Fresnel, James Clark Maxwell, Albert Einstein, Charles Kao, Arno Penzias, and Robert Wilson.

IV. IMPORTANCE OF AN INTERNATIONAL DAY OF LIGHT FOR UNESCO

11. An International Day of Light will offer UNESCO a novel important opportunity to fulfill its mission of promoting international cooperation in key areas of modern science, and provide particular opportunities to organize events and activities at its category 1 institute ICTP and at the International Centre for Synchrotron-light for Experimental Science and Applications in the Middle East (SESAME).

12. An International Day of Light will contribute to achieving the aims of the UNESCO 37 C/5 Major Programme II in Science for Peace and Sustainable Development, especially the Main Lines of Action in: Strengthening science, technology and innovation (STI) policies, governance and the science-policy-society interface; and Building institutional capacities in science and engineering. Areas where an International Day of Light will bring especially strong focus are: (i) the advancement of science and technology for sustainable development; (ii) the promotion of UNESCO's Priorities for Africa with focus on Education for All and Gender Equality; and (iii) the harnessing of international cooperation for science and technology capacity-building.

13. UNESCO has played a crucial role in the designation and planning of, among others, the International Year of Physics, the International Year of Astronomy, the International Year of Chemistry, the International Year of Crystallography, and International Year of Light and Light-based technologies. The multidisciplinary theme of light science cuts across all of these previous international celebrations, and an annual International Day of Light will ensure that existing gains from these previous observances are effectively followed-up and strengthened, and will support

UNESCO in its enduring aim to build worldwide capacity in science and technology for sustainable development.

Proposed decision

14. In light of the above, the Executive Board may wish to adopt the following draft decision:

The Executive Board

1. Having examined document 200 EX/27,

2. Considering that that enhanced global awareness of, and increased education in, the science and technologies of light is vital to address challenges in areas such as sustainable development, energy, and community health, and for improving the quality of life in both the developed and the developing worlds,

3. Stressing that the applications of light science and technology are vital for advances in medicine, communications, entertainment and culture, and that light-based technologies respond to the needs of humankind by providing access to information and increasing societal well-being, and promoting peace through improved communications,

4. Noting the broad and significant impact of recent initiatives of UNESCO's International Basic Science Programme and the enthusiastic commitment by the International Year of Light and Light-based Technologies consortium to continue working with UNESCO in the frame of internationally-coordinated programmes of outreach and education,

5. Recognizing that it is vital to ensure that existing gains from previous initiatives of UNESCO in science and education are effectively followed-up and strengthened,

6. Decides:

   (1) to welcome and endorse the recommendation to proclaim an "International Day of Light" on 16 May every year;

   (2) to invite the Director-General to support all efforts leading the proclamation of the "International Day of Light";

   (3) to include this item into the agenda of the 39th session of the General Conference of the States Parties to UNESCO;

   (4) to recommend that the General Conference at its 39th session adopt a resolution to proclaim "International Day of Light" on 16 May every year, as provided in the Draft Resolution contained in the Annex to document 200 EX27.

ANNEX

DRAFT RESOLUTION FOR THE 39TH GENERAL CONFERENCE OF STATES PARTIES TO UNESCO PROCLAMATION OF THE "INTERNATIONAL DAY OF LIGHT"

The General Conference,

1. *Having examined* document 39 C/5,

2. *Considering* that enhanced global awareness of, and increased education in, the science and technologies of light is vital to address challenges in areas such as sustainable development, energy, and community health, and for improving the quality of life in both developed and developing countries,

3. *Stressing* that the applications of light science and technology are vital for advances in medicine, communications, entertainment and culture, and that light-based technologies respond to the needs of humankind by providing access to information and increasing societal well-being, and promoting peace through improved communications,

4. *Noting* the broad and significant impact of recent initiatives of UNESCO's International Basic Science Programme and the enthusiastic commitment by the International Year of Light and Light-based Technologies consortium to continue working with UNESCO in the frame of internationally-coordinated programmes of outreach and education,

5. *Recognizing* that it is essential to ensure that existing gains from previous initiatives of UNESCO in science and education are effectively followed-up and strengthened,

6. Decides:

    (1) to endorse the proposal of the Executive Board for adoption of the celebration of the International Day of Light;

    (2) to proclaim 16 May as the International Day of Light;

    (3) to invite the Director-General to:

        (i) promote the celebration of the International Day of Light;

        (ii) grant support to the officially recognized local, national, regional and international activities carried out as part of this annual celebration;

        (iii) encourage Member States, intergovernmental and non-governmental organizations, universities, research centres, civil society associations, schools and other local stakeholders to actively participate in the event.