



UPDATE

Bioethics in Angola: experience of the Malanje Medical School

Edson Joaquim Mayer Alfredo¹, Emanuel Catumbela², Natan Monsores de Sá¹

1. Programa de Pós-Graduação em Bioética, Departamento de Saúde Pública da Faculdade de Medicina de Malanje ULAN, Angola. 2. Programa de Pós-Graduação em Bioética, Departamento de Saúde Coletiva, UnB, Brasília/DF, Brasil.

Abstract

The current development of Bioethics and Ethics in scientific research in Africa is relatively incipient, but public interest in the subject is growing. We address the experience of the Malanje Medical School in the field of Bioethics in Angola. We summarize events at the Malanje Medical School of the Lueji A'Nkonde University for the Integral Development of Bioethics. One of its results was the *Malanje Declaration*. Another one was the creation of the Research Bioethics Committee of the Malanje Medical School. Finally, we consider the steps towards the Integral Development of Bioethics as evidence of its implantation in that country. However, there is need for governmental action in the countries involved in the mediation of Bioethics networks for Latin America and the Caribbean for the South-South cooperation objective and fulfilment of all the recommendations of the *Malanje Declaration*.

Keywords: Ethics, Research. Bioethics. Research-Health management.

Resumo

Bioética em Angola: experiência da Faculdade de Medicina de Malanje

O desenvolvimento da bioética e da ética na investigação científica em África é relativamente incipiente, mas vem crescendo o interesse público pelo tema. Este artigo relata a experiência da Faculdade de Medicina de Malanje da Universidade Lueji A'Nkonde. São abordados eventos ocorridos na faculdade para o desenvolvimento integral da bioética, com destaque para a Conferência Internacional Sub-Regional sobre Ética da Investigação Científica, que deu origem à *Declaração de Malanje*, e a criação do Comitê de Bioética em Pesquisa. Enfim, conclui-se que os passos em prol desse campo do conhecimento representam indícios de sua implantação em Angola. No entanto, urge ações governamentais de países das redes em Bioética na América Latina e Caribe para efetivar a cooperação Sul-Sul e cumprir todas as recomendações da *Declaração de Malanje*.

Palavras-chave: Ética em pesquisa. Bioética. Pesquisa-Gestão em saúde.

Resumen

Bioética en Angola: experiencia de la Facultad de Medicina de Malanje

El desarrollo actual de la bioética y de la ética en la investigación científica en África es relativamente incipiente, pero viene creciendo el interés público en el tema. Este artículo relata la experiencia de la Facultad de Medicina de Malanje de la Universidad Lueji A'Nkonde. Se abordan los eventos que tuvieron lugar en la facultad para el desarrollo integral de la bioética, destacándose la Conferencia Internacional Subregional sobre Ética de la Investigación Científica, que dio origen a la *Declaración de Malanje*, y a la creación del Comité de Bioética en Investigación. Finalmente, se concluye que los pasos en pro de este campo del conocimiento representan indicios de su implantación en Angola. No obstante, urgen acciones gubernamentales de los países involucrados con las redes de Bioética en América Latina y el Caribe para efectivizar la cooperación Sur-Sur y cumplir todas las recomendaciones de la *Declaración de Malanje*.

Palabras clave: Ética en investigación. Bioética. Investigación-Gestión en salud.

Declaram não haver conflito de interesse.

In the light of the *Declaration of Malanje* (DM), this article portrays the experience in the field of bioethics at the Faculdade de Medicina de Malanje – FMM (Malanje Medical School)¹. The proposed reflection aims to find solutions for the revitalization of DM, analyzing possible causes of non-compliance with its recommendations. The implementation of the principles of the declaration would guarantee the integral development of bioethics in Angola, building mutual knowledge among health professionals and seeking common responses to shared problems.

The DM is a letter signed by the organizing members of the first International Sub-Regional Conference on Ethics in Scientific Research held at the FMM of the Universidade Lueji A'Nkonde – ULAN (Lueji A'Nkonde University). The event took place between February 29 and March 2, 2016, in order to establish the first step in South-South cooperation in bioethics¹. The declaration is the synthesis of the debates on the integral development of bioethics that took place at the conference.

Through the exchange between academics, researchers and managers of educational institutions, the first steps to implement the bioethics network in Angola were taken. In order to achieve this objective, a preliminary meeting was held to formalize cooperation, which, in its initial phase, would include only Portuguese-speaking African countries, but with prospects of expansion to other African countries.

The bioethical issues that arise in the context of Angolan medical education stem mainly from health, epidemiological and political problems. These obstacles bring their own cultural characteristics, resulting from the colonial history of the country and the introduction of European or North American values that need to be the subject of critical reflection. And in general, in most of Africa, the development of bioethics is relatively incipient, although public interest in its subjects is increasing. However, there is still no autochthonous growth, that is, the introduction of this field of knowledge has occurred through initiatives of other countries².

In Sub-Saharan countries such as South Africa, Nigeria, Kenya, Tanzania and also Angola - in the Faculdade de Medicina da Universidade Agostinho Neto – FMUAN (Medical School of the Agostinho Neto University) - several research ethics training programs were created through funding by the Fogarty International. The institution belongs to the United States National Institute of Public Health (NIH) and has been criticized by Southern bioethicists for restricting its curricula to biomedical and biotechnological aspects³. This limitation would reinforce ethical standards extraneous to African or South-American

countries by scaling up research actions in the interests of the pharmaceutical industry rather than targeting the most vulnerable populations^{2,3}.

Historicizing bioethics

In order to establish the reasons for the expansion and growth of bioethics in Angola, it is necessary to refer to its origins in this field, which became a new knowledge of integration in the last third of the twentieth century. In this period of scientific and technological development, experiments in different areas of science affected society and the environment, leading to global changes that directly impacted the relationship between humanity and nature, with a consequent threat to the permanence of life on Earth^{4,5}.

The imbalance between technical-scientific advancement and the well-being of the population has resulted in a rise in inequalities, mercantile exploitation, and social exclusion. This picture has negatively influenced human relations in different sectors of society. In health, when one observes the physician-patient relationship as well as the biomedical research, it is verified that the scientific knowledge was used several times in this period without the proper ethical precautions⁴⁻⁶.

Bioethics, as a transdisciplinary field, develops from different perspectives, and can be shared by different populations in the resolution of questions that require broad and plural reflection. As Potter claims, it is a knowledge that re-approximates biological and humanistic values, *an ethics applied to life (bioethics), as a way of emphasizing the importance of a new component of wisdom that is peremptory to attain*⁷.

André Hellegers⁸ understood bioethics as an interdisciplinary field derived from moral philosophy, focused on concrete dilemmas restricted to three areas: rights and duties of patients and health professionals; ethics in research involving human beings; and formulation of guidelines for public policies, for medical care and biomedical research.

This restricted view, contrary to the initial conception of Potter⁹, which associated biology with moral values, became preponderant worldwide^{4,5}. However, in spite of the limitation of its scope, the creation of the field has still been innovative. As Daniel Callahan¹⁰, a researcher at the Kennedy Institute, points out, with bioethics for the first time was the participation of professionals not directly related to health in care settings. Until then, subjects related to biomedicine were treated only by physicians.

Because of the relationship with biomedical development, medical schools began to adopt bioethics in their curricula within the logic proposed by Hellegers⁸. In 1970, several medical schools of American universities began to introduce content in undergraduate and graduate courses. However, most did not define it as a discipline, and only five schools (11% of the total) used the term “interdisciplinarity” as a pedagogical reference^{11,12}. In general, the intention was to reflect and develop analytical methods for making complex decisions related to participation in research or to assistance activities with scarce medical resources¹¹.

Ten years later, in the 1980s, the situation was similar in European universities. In Latin America, in 1987, Mainetti and Tealdi founded the Latin American School of Bioethics at the Universidad Nacional de La Plata (National University of La Plata, Argentina), and in 1994 they started the first Bioethics Introduction course offered at the School of Public Health^{12,13}. In Cuba, a program was implemented in the undergraduate school between 1989 and 1990, possibly being the first in Latin America to use interdisciplinary didactic bases, with a focus on the clinical ethics of the principles system of Beauchamp and Childress^{12,13}.

In Brazil, Garrafa, coordinator of the graduate program in bioethics at the University of Brasilia (UnB), began to teach Introduction to Bioethics at the medical school, and in 1994 created the Núcleo de Estudos e Pesquisa em Bioética - Nepeb (Bioethics Study and Research Center), the first of the field registered by the Conselho Nacional de Desenvolvimento Científico e Tecnológico – CNPq (National Council for Scientific and Technological Development). In 1998, a specialization course was implemented which, over time, gave rise to a master’s and doctoral program to date, including postdoctoral fellowship¹⁴. The program has supported the training of bioethicists in Angola, Mozambique and several Latin-American countries. Therefore, there is an effort made by the countries of the South, Angola among them, to establish the teaching of bioethics in professional health training through support networks and the adoption of disciplines and programs.

Pathways for the inclusion of bioethics in Angola

Some pioneering efforts in the development of bioethics in Angola stand out. This is the case of the Projeto de Reforço Institucional em Bioética (Institutional Strengthening Project in Bioethics) at FMUAN, dated June 2003, in which the Ethics Committee of the same school, like other initiatives,

benefited from technical and financial support from the Conselho de Inspeção Institucional Internacional para Proteção à Investigação em Seres Humanos (International Institutional Inspection Board Protection of Human Research) of Fogarty International^{2,3,12}. Therefore, in the scope of the project, disciplines that approach cross-cutting themes in ethics and bioethics are based on Beauchamp and Childress’s mainstream paradigm^{6,12}, whose vision is restricted to biomedical and biotechnological aspects, as already mentioned.

It is also worth mentioning the first edition of the Master’s degree in Medical Education (2004-2006) of FMUAN to introduce the module of bioethics and ethics in research with human beings. The course was taught by specialists from the University of Lisbon and by Angolan teachers with no academic background in the field, but whose knowledge was acquired by experience, in a self-taught way. If, on the one hand, these teachers were given the opportunity to teach because of their moral and intellectual authority and accumulated experience, on the other, this shows the lack of specialized human resources in the country. It was during this period that the first actions aimed at the implementation of bioethics in medical education in Angola began to appear - which so far have not had the desired effect¹⁵.

In general, in Angola, many institutions lack committees of ethics, clinical bioethics, and research. In 2014, at the Conferência do Conselho Nacional de Ética para as Ciências da Vida – CNECV (Conference of the National Council of Ethics for Life Sciences) with the theme “Bioethics in Portuguese-speaking countries,” Lima demonstrated how the emergence of these committees in Angola is recent. The first was founded on April 24, 2000, to respond to the need for the approval of a clinical trial aimed at the incorporation of a drug developed at the Instituto de Combate e Controlo das Tripanossomíases – ICCT (Institute for the Combat and Control of Trypanosomiasis)¹⁵. The National Ethics Committee, under the coordination of the Instituto Nacional de Saúde Pública do Ministério da Saúde (National Institute of Public Health of the Ministry of Health), has the main attribution of approving biomedical research projects in Angola.

Lima¹⁵ considered, as the main limitation of the country, the absence of regulatory norms to characterize the committees, defining their objectives and mode of operation in order to develop with the desired efficiency. Therefore, it is believed that the reflections made here about the experience of the FMM, in the light of the DM^{1,16}, could enrich the knowledge of health professionals and collaborate on solutions to shared problems.

Geopolitical situation of Malanje

Angola is located on the west coast of the African continent, in the southern region. It has been an independent country for over four decades, being therefore a nation-state recently freed from Portuguese colonialism, which left a legacy of poverty and misery in almost every sector. The country lived a long period of civil war, which dragged on for 30 years after independence, proclaimed on November 11, 1975.

The Angolan territory is organized in provinces which are considered basic cells for planning and budgetary allocation. In each, there are municipalities subdivided into communes, which are the smallest political-administrative units. In all, the country has 18 provinces, Malanje among them, 163 municipalities, 547 communes and 1,271 settlements.

Analysis of the United Nations Development Program (UNDP) concluded that the Human Development Index of Angola increased from 0.391 in 2000 to 0.533 in 2015, with great growth in access to education, especially at the primary level¹⁵. Regarding employability, it registered that almost 60% of the population aged 15 years or more is not in the labor market, and the average annual income level is 240 dollars, insufficient to cover living expenses in the country, which registers high prices of goods and services. All these problems affect the life expectancy of Angolans, which is only 60.2 years¹⁷⁻¹⁹.

Experience of the Malanje Medical School

The FMM experience referred to here is based on two courses, Clinical Ethics and Ethics of Scientific Research, which served as an antechamber to the first international conference on bioethics in Angola. The training took place between November 3 and December 17, 2015, with technical support from the UNESCO Network on Bioethics in Latin America and the Caribbean (Redbioética) and Antex, a private Cuban company, responsible for the management and distribution of human resources in different areas of knowledge to support health systems and education in deprived countries²⁰.

One of the courses was attended by 11 participants, students of the 5th year of medical school and technical-level nurses, among whom 10 concluded it. The graduate training had 20 enrollees, general practitioners and other health professionals with higher education, among which 15 concluded it successfully. Thus, in total, 25 students were able to obtain certificates when they fulfilled the workload

of 44 teaching hours. The activities were coordinated by Professor Acosta Sariego, academic director of the master's degree in bioethics at the University of Havana and member of Redbioética.

Two workshops on the ethics of scientific research were also held in Luanda. Organized by the Centro Nacional de Investigação Científica – CNIC (National Center for Scientific Research), the FMM and Antex, one took place prior to the international conference and the other after it. Both were attended by more than 60 academics, researchers and directors from different institutions in the country.

At the end of December 2015, the preparatory activities for the event were held with Redbioética's methodological assistance. Between February 29 and March 2, 2016, the Conferência Internacional Sub-Regional sobre Ética da Investigação Científica (Sub-Regional International Conference on Ethics of Scientific Research) was held at the amphitheater of the Malanje Medical School of ULAN, located in the fourth academic region¹⁶.

The conference was considered by its organizers as the first step towards South-South cooperation. The general objective was to create a subregional network of bioethical experts in the Países Africanos de Língua Oficial Portuguesa (Portuguese-speaking African countries, PALOP), drawing on the experience and support of Redbioética. In the long term, it is intended to stimulate exchange and collaboration between Latin America and the PALOP. The event specifically proposed:

- Promoting multidisciplinary exchanges of experiences in bioethics and ethics of scientific research among academics and researchers from Latin America and the Caribbean with colleagues from the PALOP;
- Giving public visibility to the best experiences in bioethics and ethics of scientific research in the subregion;
- Addressing the most relevant issues in the international debate on the ethics of scientific research.

Thematic axes

- Meaning of South-South cooperation in the field of bioethics;
- Foundations of bioethics - historical context;
- Universal Declaration on Bioethics and Human Rights (UDBHR);
- Ethics of research with humans;
- Emerging situations and persistent situations in bioethics;

- Bioethics experience in Angola, Cape Verde, and Mozambique;
- Prospects for cooperation between Africa, Latin America and the Caribbean.

In addition to all the topics covered, bioethics focused on the specific problems of the countries of the South had great acceptance of the participants of the event, who recognized it as a reference to be followed. After all, as highlighted by Cunha and Garrafa in their lectures, social, sanitary and environmental aspects should deserve greater attention from all, reaffirming the principles of the UDBHR²⁰⁻²⁴.

The conference also allowed for the signing of a cooperation agreement between UnB and ULAN, which awarded two scholarships for Angolan academics (specialization, master's and doctoral degrees). The first Committee of Bioethics in Research of the FMM was created, which until now has been inoperative due to the lack of qualified human resources. Subsequently, the Project for the Introduction of Bioethics was approved in the Curricular Program of the Medical Graduation in Angola, based on the Unesco curriculum and not yet implemented. Finally, a declaration on bioethics was signed for the first time in Angola, receiving the name of the province where the event was hosted, the *Declaration of Malanje* (fully transcribed in the Annex to this article).

Analysis of the declaration

Of the eleven commitments contained in the DM, so far it has been possible to partially guarantee only the fourth, with the formation of two professionals. These students are collaborating to disseminate bioethics in Angola through the publication of scientific articles (which can be used to train other students) and as multipliers of the knowledge in bioethics acquired in graduate studies²².

After the Sub-Regional International Conference on Ethics of Scientific Research, a meeting was held to define the coordinator of the articulation and implementation of the commitments signed in the MD. After much discussion, it was unanimously agreed that the director of the CNIC would assume responsibility for continuing actions that would culminate in the creation of the bioethics network among the PALOPs, with a prospect of expansion to other countries.

In this process, it is important to emphasize the fundamental role of the leadership of the FMM, the epicenter of all the institutional initiatives carried out in the bioethics field. The faculty has also undertaken to develop this field of knowledge in undergraduate

courses in medicine and other health areas, as well as in institutional committees, based on the Southern countries' benchmark and UDBHR. The institution is joining efforts to make training opportunities more effective by supporting and disseminating bioethics at all levels and for all its teachers.

We also believe that, with the completion of the training of the first two specialists, it will be possible to stimulate significant steps and actions in favor of bioethics in Angola. However, this isolated initiative is not enough; it is necessary political will and support for managers of higher education institutions in order to open spaces for reflection and debate.

Future perspectives

To effectively include bioethics in Angola, some steps will be needed, such as the recognition by the State of the importance of clinical bioethics committees and research in health and higher education institutions. The implementation of the National Bioethics Council, which does not exist to date, would also confer visibility and academic legitimacy on this field of knowledge. The council would act coordinating and guiding activities carried out in the committees of the whole country.

It would be important that the actions described be supported by the government of the countries concerned through their ministerial departments, namely the ministries of higher education, science, technology and innovation, and foreign affairs, as well as education and health. Such initiatives and activities will help to consolidate the cooperation agreement agreed upon in the MD and then to ensure compliance with the recommendations, helping to achieve the goal of South-South cooperation.

It is highlighted again that the dissemination of bioethics as a discipline in the training of professionals and the adoption of their principles as a practice in serving the population, as well as an instrument for reflecting on health policies and strategies, can greatly contribute to the creation of a nation wide commission focused on the development of bioethics in the country.

Coordinated by specialists and people committed to the integral development of bioethics in Angola and Africa in general, this commission can establish parameters of equity in the policies of access and improvement of the quality of life of the population. In the FMM, it is important that the nucleus of study in bioethics be created as soon as possible, with the prospect of evolving to become a Unesco Chair.

Referências

- Schwalbach J, Sevene E, Fernandes ECB, Araújo IIMP, Melo HP, Silva ABT *et al.* Fortalecimento dos comités de bioética nos países africanos de língua portuguesa. An Inst Hig Med Trop [Internet]. 2017 [acesso 11 jan 2019];16(Supl 2):S105-7. DOI: 10.25761/anaisihmt.63
- Ndebele P, Wassenaar D, Benatar S, Fleischer T, Kruger M, Adebamowo C *et al.* Research ethics capacity building in Sub-Saharan Africa: a review of NIH Fogarty-funded programs 2000-2012. J Empir Res Hum Res Ethics [Internet]. 2014 [acesso 20 out 2017];9(2):24-40. Disponível: <http://bit.ly/2UHMtGf>
- Andoh CT. Bioethics and the challenges to its growth in Africa. Open J Philos [Internet]. 2011 [acesso 20 out 2017];1(2):67-75. Disponível: <http://bit.ly/2IsUoFB>
- Quintanas A. V. R. Potter: una ética para la vida en la sociedad tecnocientífica. Sinéctica [Internet]. 2009 [acesso 20 out 2017];(32):1-5. Disponível: <https://bit.ly/2UbTCWs>
- Meine C. Van Renssalaer Potter: global bioethics book review. Environ Ethics [Internet]. 1989 [acesso 18 out 2017];11(3):281-5. Disponível: <https://bit.ly/2G6wweR>
- Beauchamp TL, Childress JF. Principles of biomedical ethics. New York: Oxford University Press; 2001.
- Potter VR. Global bioethics: building on the Leopold legacy. Lansing: Michigan State University Press; 1988. p. 78-80.
- Hellegers A. Compassion with competence. Americ [Internet]. 1975;136(6):113-6.
- Potter VR. Op. cit.
- Fins JJ, Gracia D. Entrevista a Daniel Callahan. Eidon [Internet]. 2015 [acesso 17 set 2017];(43):40-9. Disponível: <https://bit.ly/2UtXI6Y>
- Cardoso JV. Por uma bioética dialógica e interdisciplinar a partir do histórico de desenvolvimento da disciplina. Rev Estud Jurídicos UNA [Internet]. 2014 [acesso 13 abr 2018];1(1):233-51. Disponível: <https://bit.ly/2UQsWiq>
- Acosta Sariego JR, editor. Bioética desde una perspectiva cubana [Internet]. La Habana: Centro Félix Varela; 1997 [acesso 10 maio 2018]. Disponível: <https://bit.ly/2KrVVsZ>
- Pellegrino ED. La metamorfosis de la ética médica: una mirada retrospectiva a los 30 años. Cuad Programa Reg Bioét [Internet]. 1995 [acesso 18 jan 2019];(1):16-35. Disponível: <https://bit.ly/2P6tuv8>
- Universidade de Brasília. Pós-graduação em bioética [Internet]. 14 maio 2017 [acesso 18 jan 2019]. Disponível: <https://bit.ly/2DbGz1w>
- Lima AJ. Bioética em Angola: iniciativas e desafios. In: Conselho Nacional de Ética para as Ciências da Vida. Bioética nos países de língua oficial portuguesa: justiça e solidariedade [Internet]. Lisboa: CNECV; 2014 [acesso 21 nov 2017]. p. 77-87. Disponível: <https://bit.ly/2v0iB5a>
- Malanje: ética da investigação científica será abordada em conferência internacional. Angop [Internet]. Educação; 28 fev 2016 [acesso 18 jan 2019]. Disponível: <http://bit.ly/2Ib0yl6>
- Angola. Resultados definitivos do recenseamento geral da população e da habitação de Angola 2014 [Internet]. Luanda: INE; 2016 [acesso 11 jan 2019]. Disponível: <https://bit.ly/2ogRAG0>
- Balladelli PP. Relatório sobre o desenvolvimento humano 2016: desenvolvimento humano para todos [Internet]. Luanda: Pnud; 2017 [acesso 11 jan 2019]. Disponível: <https://bit.ly/2UPfafU>
- Rocha A, coordenador. Apresentação do relatório económico de Angola 2016 [Internet]. Luanda: Universidade Católica de Angola; 2017 [acesso 11 jan 2019]. Disponível: <http://bit.ly/2GkZM37>
- Ten Have H, Gordijn B, editores. Handbook of global bioethics [Internet]. New York: Springer Reference; 2014 [acesso 18 jan 2019]. Disponível: <https://bit.ly/2JQimTt>
- Organização das Nações Unidas para a Educação, a Ciência e a Cultura. Declaração universal sobre bioética e direitos humanos [Internet]. Paris: Unesco; 2005 [acesso 18 jan 2019]. Disponível: <http://bit.ly/2GjmEif>
- Sousa EDG, Francisco AH, Alfredo E, Manchola C. Termos de esclarecimento e responsabilidade à luz da bioética de intervenção. Rev. bioét. (Impr.) [Internet]. 2018 [acesso 18 jan 2019];26(3):360-70. Disponível: <http://bit.ly/2X2SZAk>
- Victor V. Especialistas debatem ética na investigação. Jornal de Angola [Internet]. Províncias; 28 fev 2016 [acesso 28 mar 2019]. Disponível: <https://bit.ly/30kwxp5>
- Cunha T, Garrafa V. Vulnerability: a key principle for global bioethics? Camb Q Healthc Ethics [Internet]. 2016 [acesso 3 abr 2019];25(2):197-208. Disponível: <https://bit.ly/2WaoZ97>


Participation of the authors

All authors contributed to the conception of the article. Edson Joaquim Mayer Alfredo was responsible for the bibliographic survey, Emanuel Catumbela wrote the text and Natan Monsoreos de Sá supervised the study and performed critical reading.


Correspondência

Edson Joaquim Mayer Alfredo – Universidade de Brasília. Campus Universitário Darcy Ribeiro. Colina bloco G, gleba A CEP 70904-107. Brasília/DF, Brasil.


Edson Joaquim Mayer Alfredo – Doutorando – edmayeredo@yahoo.com.br

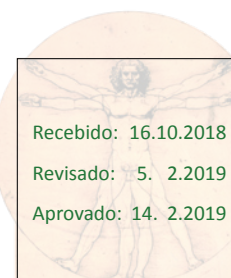
 0000-0003-4616-3641

Emanuel Catumbela – PhD – ecassoco@gmail.com

 0000-0002-3289-2643

Natan Monsoreos de Sá – PhD – natan.monsoreos@gmail.com

 0000-0002-0293-8460



Annex

The Declaration of Malanje

Determined that the current development of science, technology and innovation are essential elements for the progress and well-being of mankind, but at the same time that their irresponsible use can create risks against the protection of human rights and the balance of the environment, we are reaffirming that Bioethics is a new type of integration knowledge that offers methodological approaches for the analysis and the search for alternative solutions to the problems and conflicts of moral values that originate in the context of the applications of these scientific-technological advances.

Certain that the magnitude and globality of these persistent and emerging situations can only find a solution with the concerted action that transcends the borders of countries, regions and culture, taking into account that the current economic and social scope urges interest in access to knowledge and well-being between rich and poor countries and more and less favored social groups, it is essential that efforts be made to ensure that the most vulnerable populations and people are not particularly affected by these inequalities.

Certain that South-South cooperation in the field of bioethics is a fundamental goal for UNESCO, the organization considers it favorable to provide projects that meet and agree on the joint actions of researchers, academics and institutions from countries in the periphery of the economy transnational world, willing to collaborate in solving shared problems.

We commit to:

1º Promote links between people and institutions in our respective countries and organizations.

2º Foster the creation of a UNESCO Bioethics Network for the Sub-Saharan Africa region.

3º Develop publications and joint scientific research projects.

4º Foster the creation of human resources training programs in bioethics, providing scholarships, as well as the exchange of programs between academics, teachers and students.

5º Hold joint scientific events and disseminate the programming of each country or organization, giving invitations to lecturers whenever possible.

6º Share the bibliographic resources in different modalities (electronic and physical books, online databases, and scientific journals).

7º Advise the creation of scientific publications dedicated to the area of Bioethics.

8º Establish positions between the discussion of legal instruments and international ethical norms such as the Declaration of Helsinki, CIOMS-WHO Guideline, ICH Guide, duly updated.

9º Exchange experiences in aspects related to infrastructure in bioethics, such as scientific research ethics committees, clinical ethics committees, bioethics chairs and national bioethics commissions.

10º Promote social communication in bioethical subjects, as well as the dissemination of the results and opinions deemed relevant to the public opinion.

11º Hold a second conference in 2017 to assess the fulfillment of the agreed commitments and the results achieved from the first step of South-South cooperation, held in Malanje.

And for this to be on the record, we have signed this Declaration of Malanje on March 2, 2016.