

**Committee:** UNOOSA-ICAO

**Country:** Republic of Mozambique

The Republic of Mozambique currently does not have its own space agency, nor does it have any operational satellites in outer space. However, the African Union is proposing an African Space Agency, known as AfriSpace, that would allow countries in Africa to have a presence in space. In addition, only four countries in Africa currently have their own space agencies, and none of the four have launch capabilities at the moment.<sup>1</sup> Furthermore, Mozambique is in the process of setting up its own space agency, with its primary purposes being creating natural disaster-predicting space instruments and low-orbit satellites, as well as a training program for Mozambican staff.<sup>2</sup>

#### Topic #1: The Environment and Space Activity

The Republic of Mozambique is highly affected by climate change, and so it believes that any exploration and development of space technology should be done in a very environmentally friendly manner. Currently, some of the larger issues that space exploration has created are the toxification of soil, the destroyal of ecosystems, heavy natural resource use, and displacement of humans and wildlife.<sup>3</sup> However, the Republic of Mozambique does see benefits in furthering developments of space technology, such as through satellites and tracking equipment, which is used to provide information on weather systems, tropical cyclones, oceanic patterns, and more.

Although the Republic of Mozambique currently does not have a space agency, it feels both the positive and negative effects of space activity by other countries. It has been able to benefit from satellites that send information about tropical cyclones, and better prepare its citizens for natural disaster through the development of an early warning system.<sup>4</sup> Without the space technology the international community possesses, it would be difficult to monitor the rapid advance of climate change and the health of the environment. On the other hand, the fuel used in rocket launches contain plutonium, a highly toxic substance.<sup>5</sup> Plutonium poses a great risk to the Republic of Mozambique, as well as other southern African nations; if any amount of plutonium were to hit the coast of the Republic of Mozambique, it would have a devastating effect on the ecosystems.<sup>6</sup> In addition, the Republic of Mozambique recognizes that the

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<sup>1</sup> Fischer, Maria. "AfriSpace: 'The Biggest Project'." Space Safety Magazine. <http://www.spacesafetymagazine.com/space-on-earth/national-space-programs/afri-space-the-biggest-project/>.

<sup>2</sup> Macauhub. "Mozambique announces creation of space agency." <http://www.macauhub.com.mo/en/2009/10/08/7902/>.

<sup>3</sup> Cairns, Lyndal. "The Devastating Environmental Impact of the Space Program." Writing for Right. <https://writingforright.org/2015/03/06/the-devastating-environmental-impact-of-the-space-program/>.

<sup>4</sup> MINISTRY FOR THE CO-ORDINATION OF ENVIRONMENTAL AFFAIRS (MICOA). "National Adaptation Programme of Action (NAPA)." <http://unfccc.int/resource/docs/napa/moz01.pdf>.

<sup>5</sup> "The Devastating Environmental Impact of the Space Program." (see footnote 3)

<sup>6</sup> Dixon, Norm. "Plutonium threat to southern Africa." Green Left Weekly. <https://www.greenleft.org.au/content/plutonium-threat-southern-africa>.

substances released by the launches of rockets leads to damage to the Earth's ozone layer, and in turn, global warming.<sup>7</sup>

As an active party of the United Nations Framework Convention on Climate Change (UNFCCC), the Republic of Mozambique would like to propose to the committee that it works in tandem with the UNFCCC to create a committee or program that monitors the environmental impact of space agencies. The committee would create a set of guidelines for any future rocket launches to minimize the negative impact on the environment. Currently, the frequency of rocket launches is not enough to make a noticeable impact on climate change, but with an ever advancing industry, there is almost a guarantee that in the future, rocket launches will increase in frequency.

## Topic #2: The Militarization of Space and International Law

The Republic of Mozambique does not support the militarization of space; on November 1, 1999, the state voted in favour of a resolution titled "Prevention of an Arms Race in Outer Space" in the United Nations General Assembly.<sup>8</sup> The Republic of Mozambique would like to see the committee consider a "Prevention of an Arms Race in Outer Space" treaty, such as the one drafted by Russia in 2008; it would mean nations could not bring any type of weapon into space for any reason.<sup>9</sup>

In order to accomplish a treaty which can comply with international law, the Republic of Mozambique would like to propose a few things to discuss. To begin, it believes that any property belonging to a nation should not be tampered with or destroyed. This works in tandem with Article 17 of the Universal Declaration of Human Rights, which reads "No one shall be arbitrarily deprived of his property"; no nation should lose their property in space as a result of a weapon.<sup>10</sup> Secondly, the Republic of Mozambique believes that there needs to be a division between peaceful use of space technology by militaries, and the arming of space technology by militaries. The first would consist of actions such as Global Positioning Systems, which is beneficial to any military and does not create conflict, the second would be deliberating placing weapons to allow a nation to attack another from space. There also needs to be a fine line between what is considered space missile defense and offense, as nations can define their technology as defense when it is actually offense. Finally, the Republic of Mozambique would like the committee to consider any environmental impacts that the militarization of space will bring if this is the path the committee will be going towards. Nations such as the Republic of Mozambique are highly affected by any environmental impacts of space militarization, without

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<sup>7</sup> Reference.com. "What are some negative effects of space exploration?." Accessed November 5, 2016. <https://www.reference.com/science/negative-effects-space-exploration-e336cc12da0f09a1>.

<sup>8</sup> Global Network Against Weapons and Nuclear Power in Space. "PREVENTION OF AN ARMS RACE IN OUTER SPACE." <http://www.space4peace.org/unres.htm#res>.

<sup>9</sup> NTI. "Proposed Prevention of an Arms Race in Space (PAROS) Treaty." <http://www.nti.org/learn/treaties-and-regimes/proposed-prevention-arms-race-space-paros-treaty/>.

<sup>10</sup> United Nations. "Universal Declaration of Human Rights." Accessed November 5, 2016. <http://www.un.org/en/universal-declaration-human-rights/index.html>.

receiving the benefits of being armed from space; many nations also cannot financially afford to arm themselves in space.

The Republic of Mozambique would like the committee to strongly consider the implications of space militarization and how it affects all nations; not just large, developed ones, such as the United States of America and Russian Federation. With such a large gap military-wise already between developed and developing nations, the militarization of space would only add to such divides between nations.

### Topic #3: Space Commercialization

The Republic of Mozambique believes that space commercialization can be a good sector to improve trade and space development around the world. An increase of space travel would mean an increase in demand for materials used to create spacecraft. The Republic of Mozambique would benefit from this because one of its main manufacturing items is aluminum, which is in high demand in the space industry as it is a lightweight material.<sup>11</sup> Other benefits of aluminum alloy includes mechanical stability, dampening and temperature regulation.

Although the Republic of Mozambique will not be able to directly benefit from space commercialization due to its inability to finance its own space agency, it would like to see the committee discuss regulating space commercialization. Many nations, including the Republic of Mozambique, will be able to benefit indirectly from space commercialization through the creation of jobs and increase in demand for supplies and technology. The Republic of Mozambique hopes that the committee will consider outsourcing supplies from nations who do not have space agencies in order to boost their economies and create jobs for citizens in those nations. However, the Republic of Mozambique sees many issues in the possibility of space commercialization. Currently, there is not much interest in space commercialization from corporations and the general public; this would make it harder to fund space commercialization and generate enough traffic to sustain this sector.<sup>12</sup> As well, there will be other items the committee will need to discuss such as a set of regulations for space commercialization programmes to follow, whether these programmes will be independent corporations or under government space agencies and much more. There would also need to be a lot of research done to minimize the effects of travelling and returning from space in a short amount of time; the effect of gravity on travellers, as well as any other health concerns would need to be researched.

With this said, the Republic of Mozambique is worried about the amount of capital needed to fund space commercialization; as a nation that struggles with poverty, the Republic of Mozambique would highly encourage the committee to consider all the pros and cons of this.<sup>13</sup>

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<sup>11</sup> Commonwealth Network. "Find Industry and Manufacturing expertise in Mozambique." Accessed November 5, 2016.

[http://www.commonwealthofnations.org/sectors-mozambique/business/industry\\_and\\_manufacturing/](http://www.commonwealthofnations.org/sectors-mozambique/business/industry_and_manufacturing/).

<sup>12</sup> Livingston, David M. "The Business of Commercializing Space." Space Future.

[http://www.spacefuture.com/archive/the\\_business\\_of\\_commercializing\\_space.shtml](http://www.spacefuture.com/archive/the_business_of_commercializing_space.shtml).

<sup>13</sup> Ibid.

The Republic of Mozambique definitely sees the benefits that space commercialization can bring to its nation, but is well aware that there are many, many issues that the committee will need to tackle before implementing such a large, innovative, and advanced sector.

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