



ISSUE DESCRIPTION



COMMITTEE Committee on the Peaceful Uses of Outer Space

ISSUE Ideas for Colonising an Exoplanet

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Dear Delegate!

When debating on this fictional issue, we are asking you to represent the imaginary country you were assigned to. Please refer to the appendix and the timelines for detailed information relating to your, and to other countries as relevant to your scenario.

Let your creativity and imagination run free when brainstorming on this exciting topic!

The Chairs

Introduction

We are writing the year 2170 on Planet Earth. Our world has transformed completely and would be unrecognizable to past generations. In the past two centuries, there have been significant changes in political alliances and in the boundaries of countries: new states have been formed and some historical ones have disappeared. We have found solutions to some of the global issues we encountered in the past, including poverty, untreatable diseases and the many faces of inequality. The beauty of new technologies, astonishing architecture and the advancements we have made in space travel are achievements we all should be proud of.

However, an issue that we could not fully resolve is global warming, which escalated irreversibly over the past century. Several countries have suffered the consequences of this process; some have completely submerged in water due to rising sea levels and others have become victims of desertification. The area for farming has drastically decreased at a global level, resulting in a serious decline in food supply. The increasing number of natural disasters have already resulted in the deaths of millions and have destroyed the homes and sources of income for billions. Due to these critical conditions, the Earth's population has decreased to 5.2 billion people. This number will soon be exceeding the Earth's current carrying capacity, meaning that it will no longer be able to provide suitable living conditions for all people.

All humans have regretted not acting in time to stop climate change despite the warning of scientists. We are now unable to reverse this process and science can no longer compete with the unbearable living conditions and humanity's outgrow of their home. Not being able to restore our home planet,

governments and science had started investing more and more in space travel, with the goal of discovering a planet suitable for human settlement.

Definition of Key Terms

Exoplanet: A planet beyond our Solar System usually orbiting a star other than our Sun.

Space colonization: This process means the use of other planets for permanent and autonomous human habitation.

Alcubierre 'warp' drive: A space travel technology in which a bubble is created around the spaceship that distorts spacetime around the bubble to reduce distances; the maximum speed we can reach with warp drive is multiple times the speed of light.

L2S: A spacecraft capable of warp drive invented by CESA and NASA using advanced communication technology and the PSD78 technology.

Xolution Space Program: A program established with international cooperation of space agencies, after Planet Xoluum was found to have been suitable for life. The aim of the program is to establish plans for the colonization of the planet.

Goliath61: A spacecraft equipped with warp drive engines invented by NASA using advanced communication technology and the PSD78 technology. Goliath61 spacecrafts have the capacity to transport 10,000 people.

Space Maintenance Program: An international program specialized for maintaining and improving space stations.

Declaration of Unclaimed Lands: A list of regions abandoned by countries due to their unlivable conditions resulting from the effects of global warming.

International Space Center: An international, terrestrial space exploration center located in DRSA on the Equator and specialized for launching space objects.

International Spaceship Station: A space station designed by Roscosmos to produce spaceships, including L2S and Goliath61.

Scientific Overview

2141 was the year of a huge breakthrough in the development of space travel technologies. We had finally overcome the challenges of realizing the well-known fictional, but theoretically possible space travel technology, the Alcubierre or 'warp' drive. This method allows us to travel faster than the speed of light and has opened gateways to reaching destinations in the universe that have never been discovered before. By 2149, the first spacecraft, L2S, using advanced communication technology had been developed to a stage that made it possible to establish real-time connection with space vehicles traveling with the speed of multiple times the speed of light.

In 2153, after years of attempts of exploration of other planetary systems, we have finally found a planet with the potential of being suitable for human settlement in the so-called Posterus System, located in our galaxy. After years of careful preparation, the first mission to the exoplanet was launched by NASA in 2156 and the first astronauts set foot on the planet half a year later. During the following decade, several studies have been conducted by different space agencies to determine the planet's capability to harbor life.

Evidence from research suggests that the planet has an adequate surface temperature, a layer of atmosphere with the required oxygen content and liquid water on the surface containing chemical components similar to those available on Earth. In addition, the soil is rich in minerals and metals necessary for raw materials for various industries. Organic compounds like methane and carbon-dioxide have also been found alongside the barren vegetation, which consists of small, cactus-like plants. However, evidence for other kinds of living organisms have not been found.

While surveying rock layers underneath the soil level, scientists found a new extremely strong and light metal that can be produced cost-effectively and is suitable for building any kind of structures, for example, infrastructure and vehicles. This metal, which makes up 52% of the mantle of the new planet, was named Xolunium, hence the name of the planet: Xoluum.

Our future planet is located 5 light-years away from Earth, in the habitable zone of the planetary system named Posterus, which is centered around a yellow dwarf star, just like our Sun.

The size of Xoluum is approximately 1.3 times greater, and its total mass is 8% less than that of the Earth and consequently, its gravity is 0.92 of gravity on Earth. The planet is surrounded by a magnetic field which protects its surface from harmful radiations and charged particles. The length of one day is 31 hours and one year consists of 308 days.

After all the planet's conditions proved to be appropriate, in 2167, the Xolution Space Program was launched with international cooperation to design the space travel infrastructure. In the first stage of the space program, the production of a hyperspeed space vehicle named Goliath61 Spacecraft was launched. Initially, a fleet of 500 pieces of the 10,000 human capacity spacecraft was manufactured. 98

Historical Timeline of Events

- 2060 - Sea levels started to rise rapidly due to global warming and swallowed up coastal cities.
- 2060 - The leaders of the World tried to defend these cities from the floods, but millions of inhabitants migrated from the seashores to the inner parts of the continents.
- By 2061 - Due to climate change, the climate of equatorial regions became similar to continental climate. Due to the appearance of better conditions for growing crops, Brazil's agriculture became more developed.
- 2062 - Urbanization made cities unlivable and the standard of living was decreasing.
- 2063 - The loss of trade created an enormous issue.
- 2063 - Start of the Greater Depression.
- By 2065 - Center part of the USA turned into a desert unable to live in.
- 2066 - A group of radicalists attacked the EU Parliament.
- 2066 - A wave of riots swept across the world and governments could not protect the peace anymore.
- 2067 - Mexico became an empire, the Mexican Empire (ME) and saw its growth in the expansion of its borders.
- 2067 - Luxembourg united with the remaining Netherlands and became the Neluxian Republic.
- 2069 - A revolution succeeded in France and the country became the People's Republic of France (PRF).
- 2069 - The Mexican Empire started wars against the neighboring southern countries, several of them did not resist and joined the empire.
- By 2070 - Australia was forced to leave the west and central part of the country because of the desertification of the lands.
- 2071 - Revolution broke out in Russia against the central power.
- 2071 - In Brazil, a one-party dictatorship had been formed after the extremist party took power. The new central power saw a threat in the Mexican Empire and decided to extend their power by establishing an integrated South America. Bolivia created a personal union with Brazil and the Democratic Republic of South America (DRSA) started its progress.
- 2071 - PRF went against the EU and the difference in their opinion with the other member states started to increase.
- 2072 - Swexit happened and Sweden left the EU.
- 2073 - Portugal and Spain left the EU and established the United Atlantic Republic (UAR).
- 2074 - Cambodia took advantage of the Vietnamese crisis resulting from the rising sea levels, and attacked Vietnam.
- 2074 - The US broke into two parts and a civil war started between the Followers of Democracy and the Sons of the US.
- 2075 - PRF was the last member state to leave the European Union and the remaining members agreed on disbanding the EU.

2076 - Under Germany's leadership, Austria, Hungary, Poland, the Czech Republic and Slovakia created the Central European Union (CEU).

2076 - A civil war broke out between the Saudi dynasty and the Azyz family in Saudi-Arabia.

2076 - Revolutioners demanding democracy conquered Moscow.

2077 - The United States of the Baltics (USB) consisting of Latvia, Lithuania, Estonia and Finland was formed as an answer to the threat.

2078 - DRSA started a war against Argentina with the new members Paraguay and Uruguay.

2078 - Morocco and Mauritania joined the UAR.

2078 - Mexico joined the American Civil War on the side of the Sons of the US.

By 2079 - Gobi Desert expanded and the Chinese people were forced to migrate to the eastern part of the country.

2080 - Siberia and the European part of Russia declared their independence.

2080 - Peace of Mexico City: The American Civil War ended because of the rapid desertification of the midlands. The two parts of the USA started to function separately. Texas, Arizona and New Mexico became part of Mexico, as a reward for the help from the Sons of the US. The two new countries were the Western United States of America (WUSA) led by the Followers of Democracy, and the Republic of America with the control of the Sons of the US.

2080 - Cambodia conquered Vietnam.

2081 - The establishment of Meditterria consisting of Italy, Greece, Bulgaria, Romania, Croatia, Slovenia, Albania, North Macedonia, Bosnia and Herzegovina, Kosovo, Tunis, Líbia, Malta, Cyprus, Algeria.

2081 - A civil war led by Hong Kong broke out in the People's Republic of China.

2082 - A revolution broke out in Türkiye.

By 2082 - Canada was forced to relocate the government and the capital to Edmonton.

2083 - The Azyz family succeeded in the war and became the leader dynasty of the country. The country's name became the Arabian Empire (AE).

2084 - The Mexican Empire started a war against Panama and reached South America.

2085 - Meditterria helped the revolutionaries in Türkiye.

2085 India joined the Chinese civil war on the side of Hong Kong as hope for the Himalayan region.

2085 The Democratic Republic of Russia (DRR), the European part of Russia, expanded its territories to the Ural Mountains and the remaining part of Russia split into plenty of little states.

2086 - AE attacked Iraq.

2086 - Establishment of the United States of the West (USW), consisting of WUSA and the remaining part of Canada.

2086 - Establishment of the Scandinavian Union (SU) containing Sweden, Iceland and Norway.

2086 - Qatar and Kuwait joined the United Arab Emirates.

2086 - Ireland reunited with the UK.

- 2087 - The establishment of the United States of Asia (USA) containing Japan, Taiwan, the Philippines and the livable, remaining Australia.
- 2087 - Pakistan attacked disputed territories of historical China, which created a conflict with India.
- 2089 - Denmark was forced to move to Greenland after the Jylland Peninsula was swallowed up by the rising sea level. The country's name became the Danish Republic of Greenland (DRG).
- 2089 - Indonesia, Malaysia and Brunei Sultanate joined the USA.
- 2090 The western part of Türkiye declared its independence and later joined Meditterria.
- 2090 - DRSA conquered Argentina.
- 2091 - Peace of Seoul: The Chinese Civil War came to an end and the country was divided into four parts.
- 2094 - Siberia joined the USA.
- 2095 - AE Conquered Iraq.
- 2099 - Cambodia joined the USA.

Scientific Timeline of Events

- 2025 - ROSS launched and started a new generation of Russian space exploration.
- 2034 - ISRO Space Station was launched.
- 2041 - Space Maintenance Program was established.
- 2056 - Space Maintenance Station was launched as a cooperation of ESA and NASA.
- 2077 - Establishment of the Central European Space Agency (CESA) in Berlin as a union of the agencies of the CEU.
- 2078 - PSUARC, the Space Agency of Pakistan invented the technology 'PSD78' used by spaceships to prevent collision with space objects.
- 2079 - Roscosmos became the agency of DRR.
- 2080 - NASA became the agency of the Republic of America.
- 2083 - SSC became the Arabian Space Commission (ASC), the space agency of the AE.
- 2086 - After Canada united with the Western United States of America, CSA became the space agency of the United States of the West as the Western American Space Agency (WASA).
- 2088 - Establishment of the SCSU, the Space Commission of the Scandinavian Union.
- 2091 - CNSA remained the space agency of the PRC after the Chinese Civil War.
- 2096 - Establishment of the SAM, the Space Agency of Meditterria.
- 2107 - Foundation of the Pacific Space Agency (PSA), the common agency of the USA.
- 2123 - Establishment of the National Space Agency of Neluxia.
- 2124 - Declaration of Unclaimed Lands was written by DRG.
- 2125 - The establishment of the South American Space Agency (SASA) in DRSA.
- 2126 - Roscosmos created plans for the construction of the International Spaceship Station.
- 2127 - CESA launched the L2S spacecraft project.

2128 - Foundation of the International Space Center in DRSA on the Equator.

2129 - DNSC saw the solution of saving humanity in discovering a habitable planet.

2130 - The International Assembly of Space Exploration in Nuuk; All states participated and agreed on investing more in space exploration.

2131 - NASA joined the L2S spacecraft Project.

2134 - Roscosmos established the International Astronaut Academy in Moscow.

2141 - The prototype of the L2S spaceship was built relying on Alcubierre drive technology

2142 - The Asian Space Station was launched as a collaboration of CNSA, PSUARC, ASC and EgSA .

2145 - NASA planned a spaceship named Goliath61, which has a capacity for 10,000 people.

2146 - International Spaceship Station was launched with the entity of Roscosmos, NASA, ESA, WASA, UAESA SASA, PSUARC and PSA.

2149 - Production of L2S spaceships started on the International Spaceship Station.

2153 - Discovery of Xoluum, an exoplanet potentially suitable for life.

2156 - First astronauts landed on Xoluum.

2166 - Conditions of Xoluum are found suitable for human settlement.

2167 - Xolution Space Program was launched as a cooperation of NASA, ESA, Roscosmos, WASA, SASA, ISRO, PSUARC, PSA, CNSA, ASC, ISA, AEM, EgSA, UAESA, KARI agencies.

2168 - Production of Goliath61 spacecrafts started on the International Spaceship Station.

2170 - First settlement on Xoluum was built to be a center for the astronauts.

Main Questions to Consider

By this year, 2170, It has become obvious that Xoluum is our only chance to save humanity.

We have successfully completed the first stage of the Xolution Space Program by producing the first fleet of Goliath61 Spaceships, which are capable of transporting humans at a large scale to Xoluum only in six months.

The aim of our debate is to prepare for the second stage of the Xolution Program, the colonization itself. Plans for the project must be worked out thoughtfully, therefore, we must address all aspects of colonization.

- The process of colonization:
 - Key steps and their timelines
 - Key parties involved
 - Governance of the execution of the process (roles, responsibilities and accountabilities)
- Issue of supply
- Future of the Earth
- Continuation of the 'Earthy' life on Xoluum
- Future of the Xoluum Colony (laws and distribution of power and land on the planet)

Appendix - Major Parties Involved

Countries of Europe participating	
	Danish Republic of Greenland
	Scandinavian Union
	United States of the Baltics
	Democratic Republic of Russia
	United Kingdom
	Central European Union
	Neluxian Republic
	Belgium
	People's Republic of France
	Mediterrria
	United Atlantic Republic

Countries of Asia participating	
	United States of the Asia
	People's Republic of China
	Pakistan
	South Korea
	Arabian Empire
	Israel
	United Arab Emirates
	India

Countries of Africa participating	
	Egypt

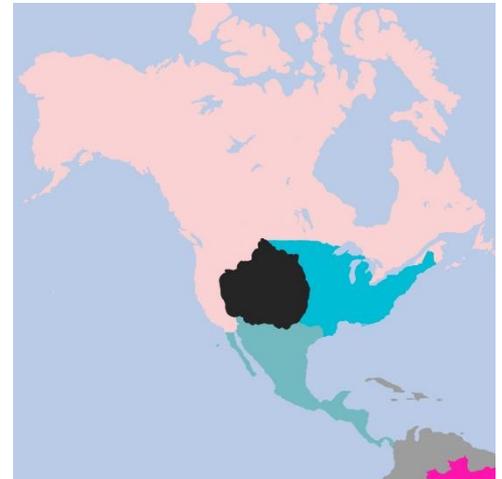
Countries of America participating	
	United States of the West
	Republic of America
	Mexican Empire
	Democratic Republic of South America

	Countries not participating
	Unclaimed Lands

United States of the West (USW)

After the country was formed by the union of Canada and the Western United States of America, a rapid economic development started in the USW. Since then, it has made strong relations with the United States of Asia, the Scandinavian Union and the Central European Union.

WASA joined several space programs.



Republic of America (RA)

After the Peace of Mexico City, RA gained the bigger and more developed part of the US. Political relations improved with USW in the 22nd century.

RA owns the space agency, NASA, which is one of the most modern and successful agencies. NASA is relying on good relations with other space agencies and common projects, but it has its own program as well. NASA is the world leader in spaceship testing and development.

Mexican Empire (ME)

The empire became the economic and political leader. The country has strong relations with the Republic of America and the People's Republic of France. There were occasional confrontations with the Mexican Empire and the Democratic Republic of South America, which later slightly normalized.

AEM was less influential in space exploration but joined a few programs.

Democratic Republic of South America (DRSA)

Auspicious changes in the country's climate led to a rapid agricultural development and the DRSA soon became the agricultural leader of Earth. Its main economic partners became the People's Republic of France, the United Atlantic Republic and the United States of Asia.

SASA is an extremely significant space agency, since it is a member of several space programs. The International Space Center is located in the country.



Danish Republic of Greenland (DRG)

As one of the major victims of global warming, DRG has started projects in climate action. The Declaration of Unclaimed Lands reached an international audience and made the country the face of climate protection.

DNCS, as a member of the ESA, took part in space programs.

Scandinavian Union (SU)

The country's strength remained as it was in the 21st century. The Scandinavian Union supports international projects with the aim to stop climate change.

SCSU was included in the programs of ESA as the number of it.

Neluxian Republic (NR)

The territories of the Netherlands were already in danger, but the union of the Netherlands and Luxembourg improved the situation in the new country. However, they lost their international political and economic weight.

NSO is part of the ESA.

United States of the Baltics (USB)

After suffering several natural disasters that resulted in depression, the country was able to recover slowly and maintained good relationships with CEU, UK and USW.

Collaboration with other space agencies was common, especially with ESA members.

Democratic Republic of Russia (DRR)

After the comprehensive changes in Russia, the new government rebuilt the country relatively fast. A huge improvement started in the country and in their foreign policies simultaneously.

DRR's space agency, Roscosmos, became the base of astronaut training, and the main producer of spaceships. Its space program is characterized by fruitful cooperation with other space agencies.

United Kingdom (UK)

The rising sea level caused several problems for both Ireland and the UK, however, after the reunion in 2086, they managed to deal with them together. The UK made attempts to protect the remaining lands, but with only minor successes, and it was facing a long-term economic recession.

UKSA remained a member of the ESA, however, its importance depended on the economic situation.

Central European Union (CEU)

The union became the leader of the continental trade in Europe, which resulted in economic development. The country managed to address several of the global-warming-caused problems.

CESA has become a leader in technological development for space exploration. It launched the L2S Spaceship development project in cooperation with NASA.

Belgium

After the dissolution of the EU and the many disasters caused by the effects of global warming, the only opportunity for Belgium to recover was to improve its international relations. The country's main goal was to avoid joining the Neluxian Republic.

BELSPO, as a member of the ESA, collaborated with other space agencies in international programs.

People's Republic of France (PRF)

PRF was able to deal with the economic crisis alone, but the damage was still huge. Its foreign policy concentrated on improving relations with the Republic of America, the United Atlantic Republic and the Mexican Empire.

CNSA, as a significant member of the ESA, participated in several space programs.

Mediterrria

The union, relying on the Mediterranean trading system, became a dominant economic power. Global warming, as the biggest threat, forced Meditterria to invent a mobilized system by constructing transportable buildings to protect them from the rising sea levels.

SAM is a member of the ESA, but the country's primary aim was to protect the economy, not to focus on space exploration.

United Atlantic Republic (UAR)

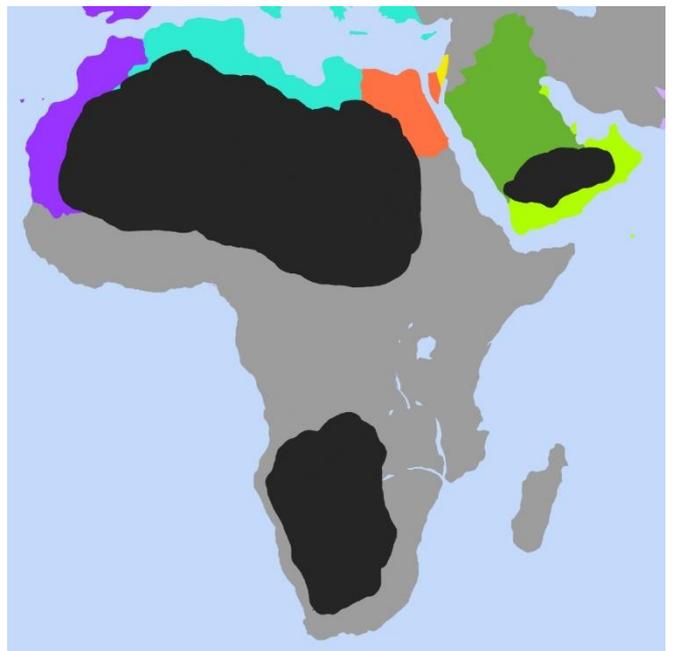
The damage from global warming was extensive and the country had to prioritize rebuilding its economy. The poor conditions started to improve by the end of the 21st century. The main partners of the country were DRSA and PRF.

As a member of the ESA, participation in space programs remained vital.

Arabian Empire (AE)

After the military conquest of Iraq, the empire's relations became weak with some countries, but it maintained strong relationships with the People's Republic of China, Pakistan and Egypt. Desertification created an enormous and irreversible issue.

ASC participated in programs, such as, in the launch of the Asian Space Station.



Israel

Due to its poor economic situation, the country was unable to protect itself, therefore, it was trying to avoid conflicts with the Arab World. It made good relations with Mediterra and the Democratic Republic of Russia.

ISA was a less developed space agency.

Egypt

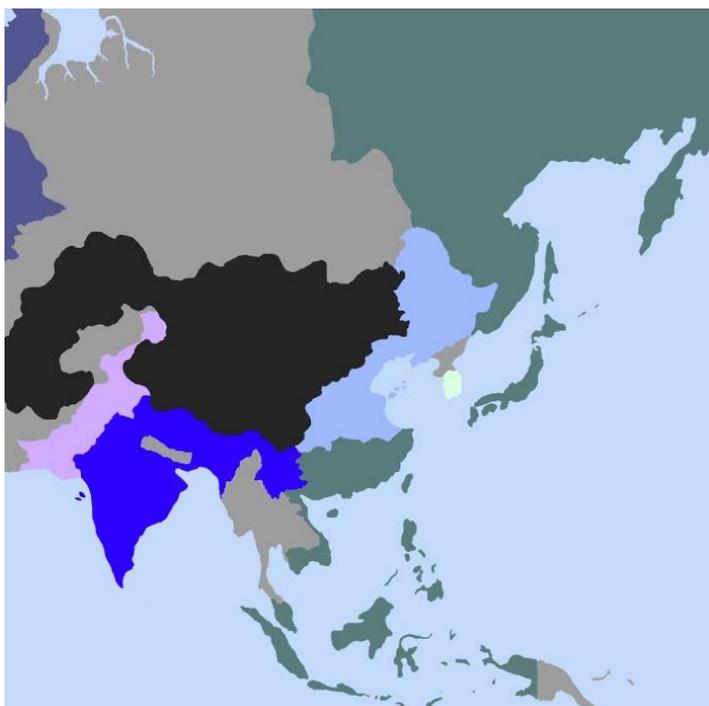
Desertification generated many issues the country was unable to manage. The main characteristics of its foreign policy were building alliances both in economics and politics with the Arabian Empire, the People's Republic of China and Pakistan.

It joined the Asian Space Station project and had no other ambitions.

United Arab Emirates (UAE)

The common threat, the aggressive expansion of the Arab Empire, united the other states of the Arabian Peninsula. This country had to focus on the problems caused by the rapidly rising sea level, which consumed the otherwise flourishing economy.

UAESA became behindhand from the other agencies because of its own issues.



United States of Asia (USA)

The country was the economical and the political leader of the Pacific and East Asian coast with a rapidly growing economy, despite the frequent natural disasters.

PSA participated in plenty of space programs and became a main financial supporter of space explorations.

People's Republic of China (PRC)

After the Peace of Seoul, the PRC isolated itself from international politics, keeping alliances mainly with the Arabian Empire and Pakistan.

CNSA remained the space agency of the PRC, but only became able to reach its current position in 2141, with the launch of the Asian Space Station.

South Korea

The country invested all its resources to protect the economy by implementing the mobilized system used by Mediterra. However, as it was very expensive, the country was unable to use it on a large scale. The country built its strongest alliances with the United States of Asia, Mediterra and USW.

There hadn't been enough financial resources to support the KARI, but lately they joined some international programs.

Pakistan

After restoring its relationships, strong associations with PRC, AE and Egypt characterized this era for Pakistan. Rising sea level caused problems on the coastlines and the government concentrated its trade on continental routes.

PSUARC invented the PSD78 technology and participated in several programs.

India

The country was able to cope with climate change challenges quite effectively. This was recognizable in its economic growth and its internal relationships as well.

ISRO became a more internationally collaborative agency and played an important role in space programs.