











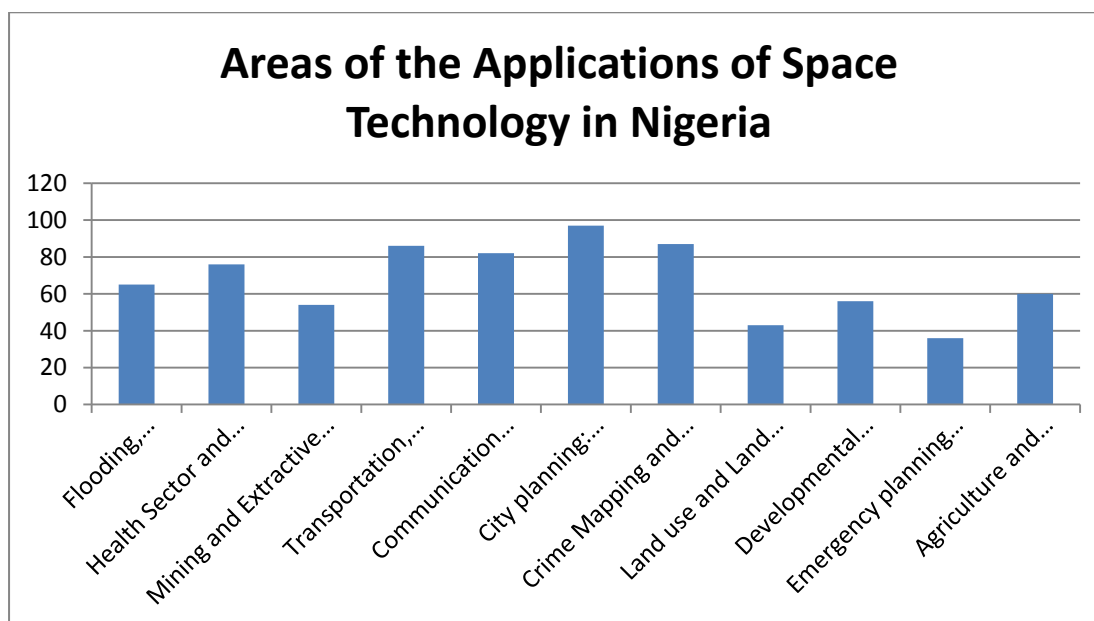
### Areas of the Applications of Space Technology in Nigeria

According to the findings of the study, some of the identified areas of applications of space technology for sustainable development in Nigeria is as shown in Table 2 and Figure 1 below:

Table 2: Distribution of the areas of the applications of Space Technology in Nigeria

Aspect of Applications of Space Technology in Nigeria	Frequency
Flooding, environmental degradation and climate studies	65
Health Sector and Paramedics	76
Mining and Extractive Industry	54
Transportation, Traffic and Accident control and prevention	86
Communication Network designs and in Aviation Industry	82
City planning: Planning and Re-Planning program	97
Crime Mapping and hot-spots delineations	87
Land use and Land cover Studies for sustainability	43
Developmental control, resource inventory and allocations	56
Emergency planning and alternative route development	36
Agriculture and Precision Farming	60

Figure 1: Areas of the Applications of Space Technology in Nigeria



### **Challenges of the application of space technology to achieving sustainable agricultural production in Nigeria**

The study identifies the following challenges of space technology applications as shown on Table 3 and Figure 2 below:

Challenges of achieving sustainable agriculture through space technology	Frequency
Corruption and lack of transparency	87
Lack of zeal on the part of Nigerian researchers and trainers	65
High rate of illiteracy and Ignorance among Farmers	89
Gender disparity	19
Poverty rate of farmers in Nigeria	45
Poor Funding by Government on research work	56

### **Ways in which Space Technology for better agricultural production can be achieved in Nigeria**

The use of Space technology for better agricultural production can be achieved in the following ways as shown in Table 4:

<b>Ways in which Space Technology for better agricultural production can be achieved in Nigeria</b>	Frequency
Public Private Partnership	34
Promotion of gender equality	46
Training of rural farmers on smart farming	58
Education for farmers and children	70
Self reliance	32
Investment on researchers to develop more interest in space technology research	26
Adequate Sensitization of farmers on the importance of Space technology	78
Adequate collaboration between space agencies and agricultural agencies in Nigeria	76
Rehabilitation of climate change affected areas such as flooded areas	49

## **Conclusion**

In order for Nigerians to have a sustainable agriculture, there is the need for us to embrace and emphasize the compulsory adoption of space technology and also not to limit it to private practice or government. There should be an awareness creation on public participatory in the decision making process which involves the citizens and their environment. Adoption of space technology in all national endeavours such as environmental monitoring, Agriculture, Climate change studies, land use and land cover studies will help foster environmental sustainability. Efforts of the National Space Research and Development Agency (NASRDA) Abuja are to ensure the use of space applications in Nigeria for good environmental inventory, monitoring and mitigation and early detection of environmental challenges and treats. If the government of the day employs and uses the avalanche of opportunities readily provided by space technology, most environmental challenges will be overcome or be reduced to the dearest minimum. This will lead to a sustained growth and development in Nigeria.

## **Recommendations**

For Nigeria to harness the gains of space technology in solving most environmental problems, the following recommendations are necessary: -

The government should encourage capacity building to increase the capacity of expertise

Government should provide more funds for research work

Government should continue in the fight against corruption

Researchers should develop more interest in space technology research towards sustainable agricultural production

Government should improve on power supply in the country

The space agency of Nigeria NARSDA must live up to standard and improve on their effort on environmental sustainability

There should be proper collaboration between the institutions involved in agricultural sustainability such as NARSDA, Federal ministry of environment, Federal Ministry of Agriculture and so on



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