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LINKING CONFLICT TO DECREASE IN AGRICULTURE. A COMPARATIVE ESTIMATION OF CONFLICT-INDUCED DECLINE IN PRODUCTION USING SENTINEL 2 IMAGERY IN GASSOL OF TARABA AND AGATU OF BENUE NIGERIA; AN OBJECT BASED APPROACH

Abstract

Renowned intellectuals, scholars, and global leaders have recently come to solidly agree that we are in hard times, and that the world is presently challenged more than it has ever been since the world war 2. The advent of the corona virus amongst several other pandemics ranging from banditry, and terrorism to population rise beyond control to climate change has further crumpled the productivity of so many countries in the world. Consequently, the threat to food security which is the biggest threat to humanity has intensified. Sadly, this situation has not been prioritized and is not treated with the utmost urgency it requires. Lot of Issues surrounding food supply have increased in recent years due to population increase, high demands and low production, methods of farming, supply chain management and conflict amongst others. This study examines, established and compare the impact of conflict on agricultural production in Gassol Local government area of Taraba state and Agatu community of Benue states Nigeria respectively. The two communities are consciously selected due the high rate of conflict that have heavily affected the livelihood of the people whom are majorly farmers, hence food insecurity. Some of the problems this study attempts to address are the untold hardship and difficulty faced by the displaced people of Gassol and Agatu communities due to conflict, the food insecurity hazards posed by these conflicts to Nigerians, their neighboring countries/environs and the threat it poses to the implementation and attainment of the Sustainable Development Goal 1,2,3,4,5 16. An Object Based Approach procedure on Sentinel 2 Imagery of Gassol and Agatu between the years 2010- 2020 was employed, respondents were randomly sampled from the two different communities where conflicts have occurred over time. Imagery were classified to establish conflict Induced farm land loss and production decrease. The work also computed the Land cover area in each classified image and determine the land cover change matrix over the chosen period (2010 to and 2020) and then proposed a web map application for monitoring agricultural production in the conflict areas. Lastly, the work suggested a possible solution for managing the any associated risk using a Community participatory GIS technique for conflict resolution.