

Cambodia

1. Background

Cambodia, known as Pearl of Asia in 1960's, unfortunately fell into war and become known to the world as a Killing Field and a genocidal country in the 1970's. More than 2.5 million people were killed by the ultra-leftist Khmer Rouge. Its social economic infrastructures were almost completely destroyed. But since 1999 it has been rebuilt again and has since become a peaceful country and developed thanks to the "Win Win" policy under clear-signed and realistic leadership of its former Prime Minister Samdech Akka Moha Sena Padei Techo HUN SEN, the Royal Government of Cambodia together with the valuable moral and material assistance from the international community. After national election 2023, the new government leading by Samdech Moha Borvor Thipadei HUN MANET, Prime Minister, the Royal Government of Cambodia has continued the achievement of the former Prime Minister Samdech Akka Moha Sena Padei Techo HUN SEN through the successfully implemented the Triangular Strategy and the Rectangular Strategy in four distinct phases. These achievements have resulted in commendable progress in all sectors, including politics, society, and economy enabling Cambodia to proudly renew its image. The new government is implementing the Pentagonal Strategy-Phase I for Growth, Employment, Equity, Efficiency, and Sustainability: Building the Foundation Toward Realizing the Cambodia Vision 2050.

Cambodia population size is 15.6 million in 2019 and it will increase 21.7 million in 2050 while GDP per capita 2022 is 2,345US\$ based on the base year 2014 with inflation March 2023 is 1.1%.

Cambodia became the 104th member of the Group on Earth Observation (GEO) in 2017. After became the membership, the GEO unit has been set up under the National Institute of Statistics, Ministry of Planning. The budget and work plan of the project have been put in the annual budget programme of National Institute of Statistics. The project has been started since 2019 until 2023 funded by the Royal Government of Cambodia and there are 5 reported has been produced based on data collection for primary data and secondary data.

2. Vision and Mission

2.1 Vision

The main vision of Cambodia GEO is to develop "Data Cube in Cambodia" and in the future for monitoring natural resources and man-cause disasters such as flood, drought, rain storm, typhoon, thunderstorm, land slide, and deforestation as a part of SDGs implementation.

2.2 Mission

The main mission of Cambodia GEO is to prepare the work plan of the project for data collection, analysis and dissemination. It is also to strengthen institutional capacity building of this project.

3. Data collection

The main activities of this project are collecting data for primary data in the field and secondary data from relevant ministries and government institution involvement. The Cambodia GEO will also use the satellite data sharing from GEO member countries combine with social economic data has collected from survey and government institution involvement. The primary data has collected from the head of household and head of village focus on main

indicators such as demographic, environment, disaster and climate change. The secondary data has collected from Ministry of Environment, Ministry of Water Resources and Meteorology, National Institute of Statistics, National Disaster Authority, Mine Authority of Cambodia, and other documents from the internet etc.

4. Finding

Due to rapid population growth which causes the increase of urbanization, some land has transformed from rice field to settlement and other land uses giving negative impacts to environment such as water pollution and poor sanitation. Based on the data collection in 2023, it has shown that the infrastructure and rice and crop have broken by flooding and the 6,644 families who living in along the river has also affected by flooding. The thunderstorm has killed 46 people and 39 people has injured while in 2021 about 5,145 households has affected by storm and it has killed 25 people. The 28,688 people were killed by mine and old weapon remaining from the civil war from 1992 to 2023. The rise river water has decreased gradually, raining fall is irregularly and the air temperature in Cambodia during dry season is significantly high approximately 38.4°C to 45°C in the year 2023. The result shows that in 2023, the temperature fluctuates very much in both dry and wet seasons which is too cold in wet season and too hot in dry season and it is considered as the cause by the global warming. The land cover in the whole year 2023 from the satellite data sharing by ESRI, NASA by using Sentinel2 Satellite has shown that it has water (20%), Trees(36%), Flood(0.8%), Crops(28%), Built (6%) and Range(9%).

5. Challenges

There are many challenges during implement this project because it is the new work for Cambodia. The main challenges as described in the below.

- The capacity building of staff limited
- The budget support from the government has limited
- No satellite data.

6. Way forward

The main activities of Cambodia GEO in the future are to:

- To continue the data collection for primary and secondary data as well as satellite data as possible
- To improve capacity building by training in short course or long term as possible
- To coordinate and finding support from development partner s possible out of the government budget.