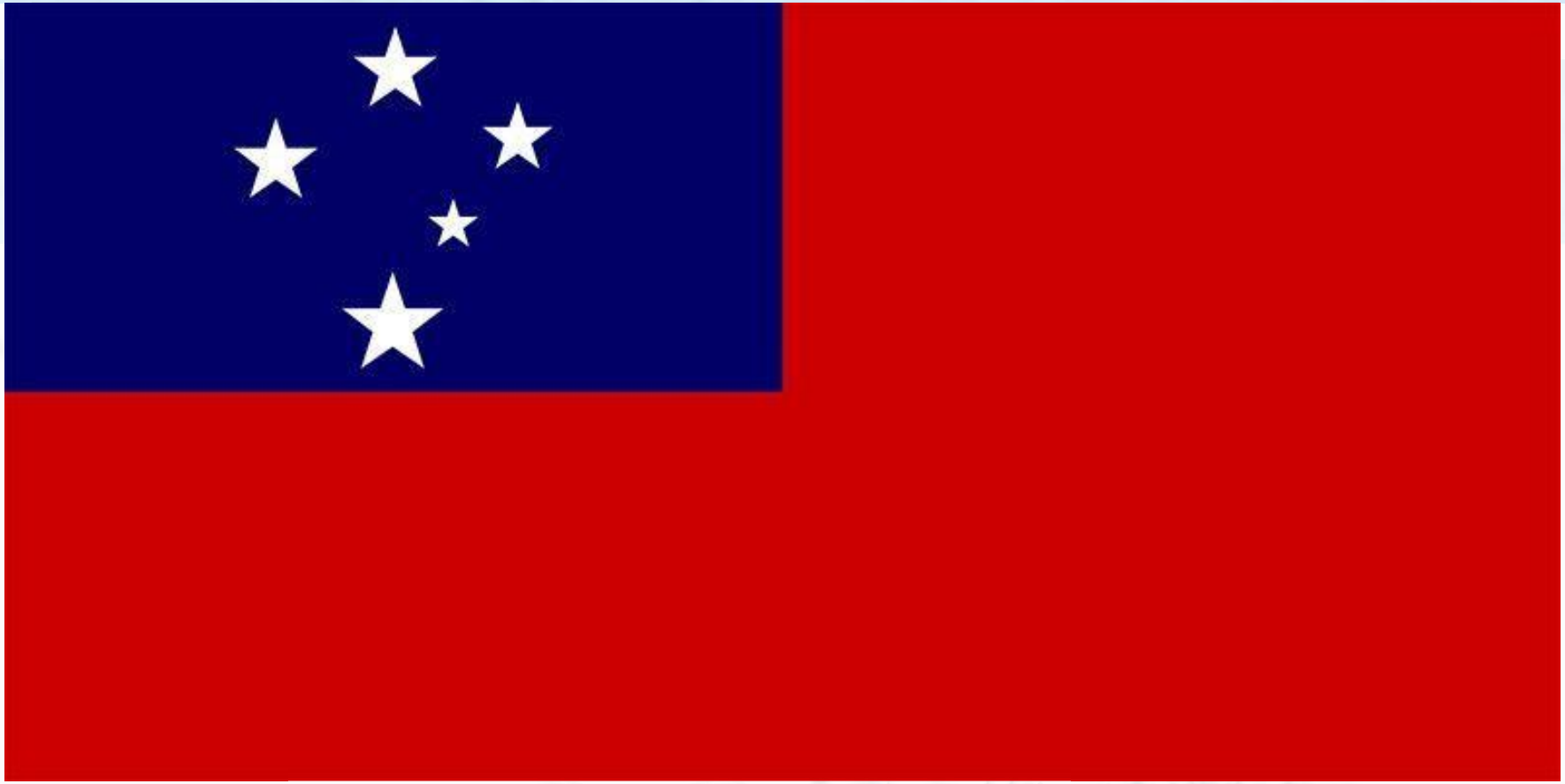
Ministry of Communications
& Information Technology

Government of Samoa

Country Report of Digital Technology and Climate Change



SAMOA

1. Country Overview

GEOGRAPHY AND CLIMATE:

Samoa is a group of volcanic islands in the heart of the South Pacific. Samoa consists primarily of two major islands, Upolu and Savaii, which together make up an area of approximately 2,680sq. km. Samoa has two distinct seasons, the “Hot and Wet” season, is from November to April. The “Cool and Dry” season is from May to October.

POPULATION AND ECONOMY:

Approximately 218,237 people live in Samoa with 70% of Samoa’s population and infrastructure are located in low-lying coastal areas.

The economy of Samoa base on subsistence and exports that include agriculture, fishery and forestry products. Tourism is another growing industry. There are also several food processing and automobile parts plants. However, Samoa remains somewhat depended on financial aids.

2. Climate Change Challenges

TROPICAL CYCLONES, FLOODING AND EARTHQUAKES:

Pacific island nations are particularly vulnerable to natural disasters due to a combination of geographical, environmental, and socioeconomic factors that bad situation the impacts of events like cyclones, floods, and sea-level rise. Many islands are low-lying and surrounded by ocean, making them easy to be affected to coastal flooding, storm surges, and the effects of rising sea levels.

EXTREME WEATHER EVENTS:

Samoa is already facing longer dry spells and stronger cyclones. In the next 20–30 years, it is expected to experience more heatwaves, irregular rainfall causing floods and droughts, and even stronger cyclones. Just last month, Samoa even experienced ice rain.

RISING SEA LEVELS:

The rising sea level is causing Samoa to lose land, damage property, and force people to move away from the coast. Since 1993, the sea level near Samoa has been going up by about 4 millimeters every year.

OCEAN ACIDIFICATION HAS BEEN INCREASING:

Every year, the ocean absorbs about 25% of the carbon dioxide (CO_2) released from human activities.

When CO_2 mixes with seawater, it forms carbonic acid, which makes the ocean slightly more acidic.

This acidity makes it harder for corals and shell-building organisms (like clams and some plankton) to grow and build their skeletons.

Corals and these organisms are very important for reef ecosystems, providing food, shelter, and protection for many marine species.

In Samoa, the level of ocean acidification has been slowly increasing, which threatens coral reefs, fisheries, and coastal protection

3.Role of Digital T echnology in Climate Change Adaptation

CURRENT DIGITAL TECHNOLOGY STATUS

Samoa is actively working to enhance its digital landscape, focusing on improving internet access, digital public services, and cybersecurity. The government is investing in ICT infrastructure, expanding broadband, and developing secure online platforms for services like healthcare and business registration. A key driver is the Samoa National Digital Economy Strategy, aiming for greater digital inclusion, innovation, and e-commerce growth

is a physical location where different Internet Service Providers (ISPs), Content Delivery Networks (CDNs), and other networks connect to exchange internet traffic directly, rather than routing it through third-party networks

REMOTE SENSING AND MONITORING:

1.Coastal infrastructure management – MNRE

2.Census mapping – Samoa Bureau of Statistics

3.Predicting impacts of climate change on forest ecosystems – MNRE

4. MCIT- Cybersecurity and Digital Connectivity, One Government Policy

Digital Technology Status

- The Digital Transformation and Innovation Unit Office (DTIUO) within the Ministry of Communications and Information Technology has been established and is operational.
- All necessary strategies and plans for implementing initiatives have been drafted or revised, and their implementation has begun.
- Internet coverage in Samoa is 100%.
- Schools, clinics, and District Community Centers are being connected to the internet.
- A holistic approach to bringing digital transformation benefits to communities has been adopted, and District Community Centers are starting to be used by the Government and its partners as platforms for service delivery.
- The National Digital ID is being implemented.
- Electronic payments are widely available.

4.Challenges in Utilizing Digital Technology

INFRASTRUCTURE OF DIGITAL TECHNOLOGY:

The infrastructure of digital technology is crucial for the effective use and deployment of digital systems, but it also introduces several challenges such as maintenance, security risks and cost management.

TRAINING AND EDUCATION SYSTEM OF DIGITAL TECHNOLOGY:

Technical Expertise requires to manage and maintain complex infrastructure requires specialized skills which can be difficult to find and retain

Training needs: Regular training is needed for staff to keep up with evolving technologies and best practices. Eg the connectivity is there but not utilize

ENVIRONMENTAL IMPACT:

Energy Consumption: Data centers and other infrastructure components can consume large amounts of energy, leading to higher operational costs and environmental concerns.

E-Waste: Disposing of outdated or broken hardware can pose environmental challenges and require recycling process

5. Capacity Building

GOAL:

Enhance the ability of government officials and local communities to leverage digital technology for climate adaptation.

ACTIONS NEEDED:

Conduct surveys or interviews to understand the participants' current knowledge, skills, and specific needs related to digital technology and climate adaptation.

Partner with educational institutions to incorporate digital technology training into the national curriculum.

Samoa's digital technology and climate change

- Samoa is actively pursuing a comprehensive "Digital Pathway" (Digital Transformation Strategy 2023-2030) to leverage digital technologies for socio-economic growth, shared prosperity, and increased resilience.

Key aspects:

- Infrastructure
- Skills and Adoptation
- Government Services
- Economic Impact
- Legal and Regulatory Framework

6. Samoa's situations of digital technology and climate change

Samoa faces significant climate change challenges, including rising sea levels, extreme weather events, and changing precipitation patterns. To address these issues, the country is increasingly leveraging digital technology. Satellite and drone-based remote sensing provide essential data on environmental changes, while weather stations and climate models offer valuable forecasts and predictions. Early warning systems, powered by digital platforms, help in alerting communities about impending natural disasters. Digital tools also support community education through online resources and e-learning, enhance disaster management with digital mapping and coordination, and contribute to sustainable development by optimizing resource use. Overall, Samoa's integration of digital technology into its climate adaptation strategies is strengthening its capacity to manage climate risks and build resilience against environmental challenges.

Assistance needed from South Korea regarding digital technology and climate change

Samoa is seeking assistance from KOICA and ESCAP to enhance its digital technology infrastructure and address climate change challenges. The assistance likely focuses on improving Samoa's technological capabilities to better manage environmental impacts, implement sustainable practices, and adapt to climate change effectively. This partnership would help Samoa leverage South Korea's advanced technology and expertise in these critical areas.

Thank You