SMART ISLANDS SAMOA PROGRAMME

Manono –Tai Preliminary needs Assessments and Priorities

Executive Summary

The Sustainable Development Goals (SDGs) are a set of global goals adopted by the United Nations to end poverty, protect the planet, and ensure peace and prosperity for all. The Smart Villages and Smart Islands Initiative has the potential to contribute to the achievement of several of the SDGs, including goals related to affordable and clean energy, decent work and economic growth, industry, innovation and infrastructure, and others.

The Smart Villages and Smart Islands Initiative[1] is a digital transformation project at the grassroot level. It aims at empowering people of rural and remote communities through broadband connectivity and digital services, leaving no one behind. This technical assistance has been provided to Ministry of Communications & Information Technology (MCIT) of the Government of Samoa by the International Telecommunication Union (ITU) as part of ITU-Department of Infrastructure, Transport, Regional Development, Communications and the Arts (DITRDCA, Australia) project. The initiative aims to digitally transform rural and coastal communities, improve their livelihoods and their well-being by connecting them to a range of digitally enabled services. It is designed with a whole-of-government approach and is demand-driven, user-centric, flexible, and focused on sustainability, scalability, and multi-sector collaboration. Supported by the ITU, the Government of Samoa takes strong leadership in implementing the Smart Islands Samoa Programme as it will target addressing the existing gaps and resource constraints within the Manono Island and create new digital opportunities for the community.

This national programme has the potential to improve the quality of life for the people of the Manono Island (also called Manono-Tai in their local language), drive economic growth and development, and contribute towards Samoa's aspiration to become a regional digital hub in the Pacific. It also contributes towards the key results areas of the Pathway for the Development of Samoa (PDS) 2021/2022-2025/2026. The whole-of-society, whole-of-government approach, including support and collaboration from relevant stakeholders, such as the Government, industry, non-Government sectors ("NGOs"), civil society and international donor partners, is essential for the success of the programme.

To assist the Government of Samoa in planning the intervention that are relevant and needed by the citizens of Manono-Tai, , ITU was requested to conduct a preliminary needs assessment study to identify the key challenges and needs of the beneficiary communities on the Manono Island.

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[1] ITU's Smart Villages and Smart Islands Initiative, which started with Smart Village Niger in 2018 is currently being scaled out to around 15 countries in Asia and Pacific region.

The initial findings have revealed that key areas of focus include the need for improvements in broadband connectivity, enhancing affordability of digital services, improving digital skills training and awareness, making priority digital services available for Manono-Tai. There is also a need to support these digital interventions with partnerships and wider socioeconomic investments in such areas as, transport and logistics.

With this background in mind, this report aims to document 1) the existing circumstances of the Manono Island, 2) unmet yet fundamental needs of local communities, and 3) how ITU's Smart Villages and Smart Islands Initiative and the Government of Samoa's Smart Islands Samoa Programme plan to solve the daily challenges of people of Manono Tai. The preliminary needs assessment was conducted during December 2022 to January 2023 by an ITU expert with support from the Government of Samoa. The report details the findings from the study with considerations to topics, such as improving broadband connectivity, making digital services available and affordable for people, equipping them with digital awareness and skills, and the importance of cross-sectoral partnerships and investment as an enabler. It is also hoped that the analysis and recommendations provided in the report will guide the Government of Samoa and beneficiary communities in successfully and sustainably driving the digital transformation of the Manono Island.

Furthermore, by aligning the national digital transformation activities with the SDGs, it will be possible to demonstrate Samoa's commitment to global development and contribute to the collective efforts of the international community to achieve these goals as well.

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Study background

The Smart Islands Samoa Programme aims to digitally transform remote and rural communities by connecting them and empowering the citizens with better access to a range of digital services that can meaningfully improve their wellbeing and livelihoods. It leverages on digital solutions to address some of key challenges that communities are facing and open new digital opportunities available to them. The Programme, which is being piloted in the Manono Island by the Ministry of Communication and Information Technology (MCIT) of the Government of Samoa, adopts a whole-of-government approach to realize digital transformation at the community level. This is aligned with the Pathway for the Development of Samoa (PDS) 2021/2022-2025/2026 and the digital transformation strategy of the Government.

To understand the priority needs of the community, the challenges experienced by them, and possible solutions of how digitalization can accelerate meeting those challenges, a study has been undertaken. It was based on consultations with the community and stakeholders in which 12 villagers (7 male and 5 female) participated in December 2022 and January 2023. A survey was also conducted with 150 villagers across 24 households. As part of community engagement, basic digital skills training and community awareness programmes on digital services and online safety were also undertaken. The report presents the situation on the ground relating to broadband connectivity, affordability, digital literacy and skills, and priority digital services, and proposes a roadmap for the Smart Islands Samoa Programme at Manono-Tai.

About the Manono Island

The Manono Island is an island of Samoa, situated in the Apolima Strait between the main islands of Savai'i and Upolu, 3.4 km west-northwest off Lefatu Cape, the westernmost point of Upolu. Samoa consists of four inhabited islands *(Savaii, Upolu, Manono and Apolima),* and a number of smaller uninhabited islands. The capital Apia is located on Upolu which is the most populous and developed of the islands. Upolu and Savaii account for approximately 99 percent of Samoa's population whilst the remaining 1 percent of the population call either Manono-Tai or Apolima home.

There are four villages on the island of Manonoi with a total population of only 637 according to the 2021 census. The population has dropped since the 2006 census where the population was recorded at 889. There are a handful of small convenience stores servicing the island. It also offers beach *fale* (huts) accommodation for visitors. The boat trip from Upolu takes approximately 20 minutes and costs US$ 40 (roundtrip).

In terms of governance, the Manono Island falls under the constituency of Aiga ile Tai which has one Member of Parliament in Samoa's 51 electoral seats. Although Samoa has

adopted Western styles of governance at the national level, traditional governance is still prevalent at the village level. The Matai or chiefs deal with customary and traditional issues at the grassroots level. Manono-Tai has four Pulenu'u (village mayors). The mayors form their own "komiti a le pulenuu" (mayor working committee), which is made up of chiefs, women (faletua ma tausi) and working youth, and are governed by village protocols which are legislated under the Village Fono Act 1990.Dogs of any kind are prohibited on Manono-Tai.

The four villages and their populations on the Manono Island are:

1. Apai, west (104)
2. Faleu, south (247)
3. Lepuia'i, southwest (166)
4. Salua, north (120)

The island's highest point, and an archaeological site, is Mt. Tulimanuiva at 110 meters (360 feet), which is accessible by walking tracks.

Figure 1 – the Manono Island from A Distance

There are no airports or roads on the Manono Island so there are no cars. It is only accessible by small engine boat that disembark from a wharf in *Aiga ile Tai* on Upolu Island. The main thoroughfare is a footpath with a travel distance of about 6.17Km around the island which is an estimated one hour and 30-minute walk along the coast. Dogs and horses are banned for environmental reasons.

In the early 19th century, the island was sometimes called Flat Island, because it consists of a small, flat hill and surrounding low-lying terrain, which is only visible at close approach.
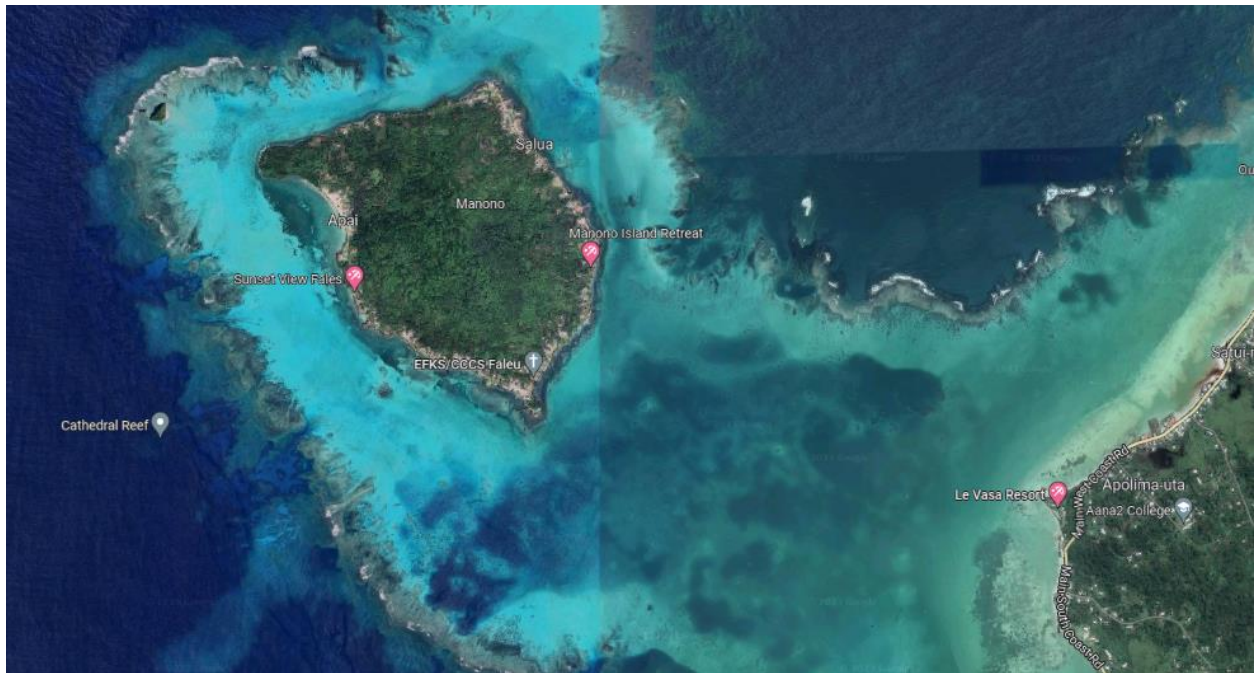
Figure 2 - Birds eye view of the Manono Island

The Manono Island has been selected by the Government of Samoa as the location for the Smart Islands Samoa programme, which aims to bring transformative digital solutions to the island and serve as a catalyst for other communities in Samoa. This programme has the potential to revolutionize the way that Samoa approaches digital transformation and take advantage of the digital age.

ITU Smart Villages and Smart Islands initiative framework

ITU Smart Villages and Smart Islands initiative is designed to address the socio-economic challenges faced by communities through digital transformation at community level with emphasis on vulnerable populations (women, youth, and persons with disabilities) in order to leave no one behind. It leverages on the four pillars of (i) improving broadband connectivity (ii) making broadband affordable (iii) enhancing digital skills and (iv) providing digital services, to impact people's lives based on their local priorities. Figure X illustrates the problem and solutions as well as the approach.

The four solution components can be used as stand-alone or in combination to meet the specific requirements of communities. For example, some communities need to address only broadband affordability and digital skills or literacy programme. Accordingly, locally tailored solutions could be designed and developed. In the process, the linkage to digital services and applications provided by central and local governments would be essential.
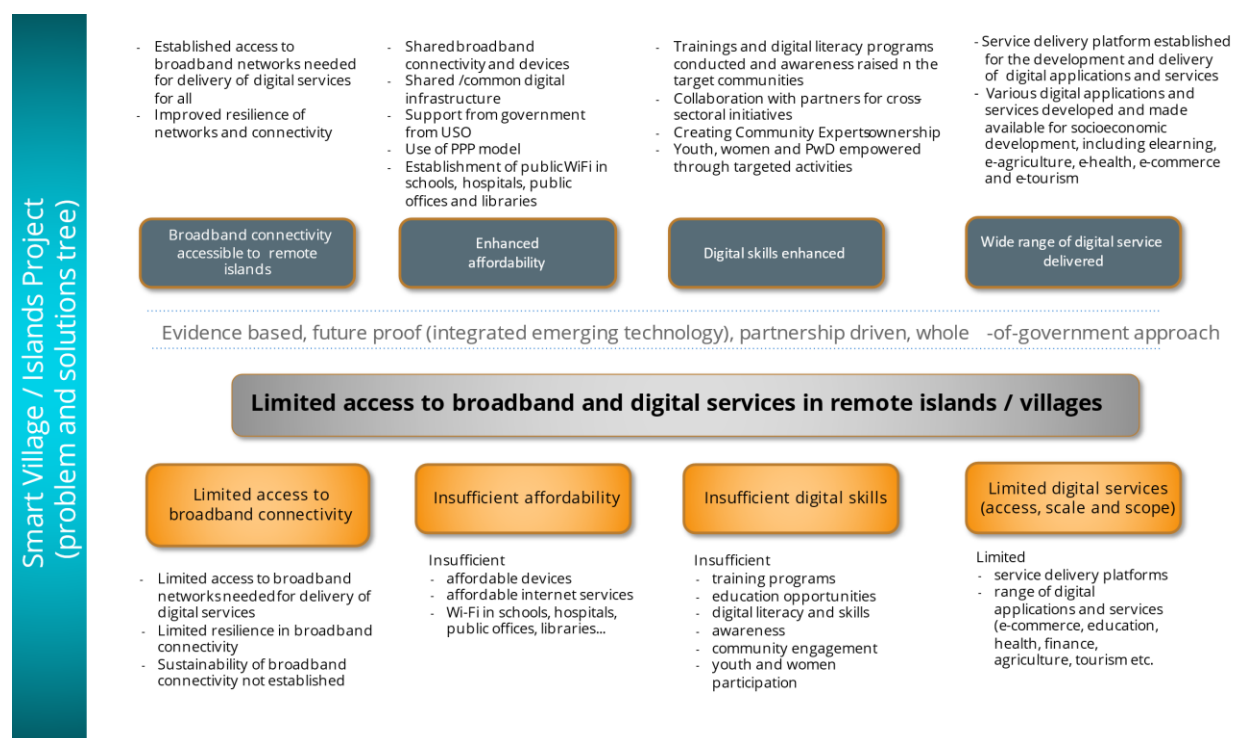
Figure 3 - Smart Villages and Smart Islands Problem and Solution Tree

The framework is expected to guide countries in developing their national programmes and projects.

It is expected that affordable, reslilient and sustainable access to digital applications and services among remote and rural communities and vulnerable groups, coupled with capacity development and policy support, will lead to better socioeconomic outcomes, such as increased business, income and employment opportunity, while improving access to education and health resources and helping prepare for natural disasters.

IMPLEMENTATION ROADMAP

A three-step implementation process is recommended for the Smart Villages and Smart Islands Initiative with each step providing its own deliverables as described in Figure 4 below.

Stage 1: Programme development and village needs assessment

Stage 2: Programme roll-out, governance set up, stakeholder engagement and pilot services

Stage 3: Village scale-up (with possibility of new villages)

SDGs and National Goals

Current state analysis

Future state analysis

Project approval

Stakeholder engagement and governance

Awareness raising and skills

Launch of priority pilot services (multiple sector)

Evaluation

Stepped up investments and service portfolio

Launch of new services

Community and government ownership

Programme and project development

Community demand, governance model in place, pilot services, project implementation

Range of digital services in the villages with local ownership

Figure 4 - Steps in Smart Villages and Smart Islands Initiatives

Step 1 entails programme and project development and needs assessment and is expected to take 3-6 months for each village. Step 2, which includes programme and project roll out, governance set up, stakeholder engagement and pilot services for identified villages, is typically planned over a period of 2-3 years. It will also create a proposal for scaling out the initiatives (Step 3) based on the experiences and learnings from Step 1 and Step 2.

As described in Figure 3, the implementation is structured across connectivity, affordability, digital skills and digital services. It can be further expanded based on the digital services rendered. Partnerships can be structured around modules depending on the relative strengths. For example, telecom services (e.g. broadband connectivity), digital service providers (e.g. e-health, e-education, e-agriculture, e-commerce), digital skills providers (e.g. academia, training providers), financial institutions(e.g. development banks), implementation partners (e.g. national and local stakeholders, development agencies), policy entities (e.g. ICT and Sectoral policy makers and regulators) amongst others have their own roles to play. The model is scalable based on the size and need of

the village or islands. It is expected that the investment per sector and per community is minimized, as the common infrastructure and platforms can be used or shared by various sectors and partner initiatives. It is also envisaged that the multi-sectoral nature of the programme will help increase the sustainability of the programme in the medium to long term.

Site visits and data collection

The ITU expert team undertook four site visits to the island to collect information to better understand Manono-Tai's current:

- composition and structure;
- digital infrastructure;
- human resource capacity; and
- digital literacy of the residents.

This helped the team to assess the needs of the residents and identify the gaps and challenges to development that the island currently faces. The assessment found that there are opportunities for improved service delivery to promote growth and development, which are currently hindered by factors detailed in this report.

The qualitative research method was used to collect information from the residents of Manono-Tai for this report. A survey was conducted on a wide range of residents where the questions were tailored to elicit understanding of the conditions and state of support available to the residents of the island.

Relevant Government and non-Government agencies and stakeholders were also consulted on this project specifically personnel from:

- Ministry of Communication and Information Technology (MCIT)
- Office of the Regulator
- United Nations agencies (UNDP, UNESCO)
- Communication providers within the private sector (Vodafone, Digicel, Samoa Digital Communications)

Community engagement

The field visits were a scoping mission to identify the relevant stakeholders and their needs, introduce the Smart Islands Samoa Programme and its objectives and identify preliminary courses of action to effectively implement the program.

1. High level consultations

The Smart Villages and Smart Islands Initiatives is a digital transformation project at the grassroot level, developed by the International Telecommunications Union (ITU). It has been tailored to address the challenges of small coastal communities, and it was initially introduced by the ITU to MCIT and a pilot site for Samoa was identified. The Samoa project is widely called **the Smart Islands Samoa Programme and is led by the Government of Samoa with support from ITU**.

Relevant ITU representatives were in Samoa from 13 – 16 December to conduct site visits and identify local stakeholders. During this period, the Smart Islands Samoa Programme was introduced to the United Nations Education, Scientific and Cultural Organisation (UNESCO) office in Samoa and to the local telecommunication providers, Vodafone Samoa and Digicel. These organisations were receptive of the project and expressed interest in working together to implement it.

The Smart Islands Samoa Programme was also introduced to various public and private sector partners alongside the stakeholder consultation for the Strategy for the Samoa Digital Pathway 2023-2030.

2. Manono-Tai Community

The preliminary Smart Islands Samoa needs assessment involved engagement with a wide group of individual community stakeholders from Manono-Tai. Those engaged included 12 villagers, comprising 7 males and 5 females, of whom 5 were youths (aged 15-24), 4 were adults (aged 25-50), and 3 were seniors (aged 50+).

3. Awareness raising

During the awareness raising activities in Manono-Tai, the majority of those in attendance indicated a willingness to be a part of the Smart Islands Samoa project and having implementation start as soon as possible.

As the photos depict, a gender and age inclusive approach was adopted during the consultations. The village mayor spent all of his time with the ITU consultant ensuring that the residents understood the project purpose. He is also the main point of contact for the project. The consultations included one on one interviews with the residents who were then able to identify their specific needs and how the Smart Islands Programme can assist them. For example, a local fisherman wants to leverage the power of popular online

selling platforms to sell his catch and eliminate the need to travel to Upolu to market and sell his fish. The President of the School Committee also called for improvements to internet connectivity at the school premises so that lessons are not disrupted and can be continued via Zoom in cases of school shutdowns like they previously experienced during the pandemic.

The ITU Consultant traveled to Manono-Tai three times from December to early January 2023 to interview selected residents and carry out data collection.

Understanding the socio-economic situation and challenges in Manono-Tai

Education

The Island has two primary schools on the villages of *Faleu* and *Salua* for students ranging from Year 1 to Year 8). There are computing facilities within the schools. However, according to the school committee president, they are not in use due to a lack of technical capacity. **While the infrastructure is available for improved education on the island, the human resource capacity gaps are apparent. There are three teachers catering to the two schools.**

Figure 5 - Faleu Primary School is one of two primary schools on the island of Manono

There is no college on the island. Once students graduate from primary school, some opt to move to Upolu for further education while others choose to make the daily commute to Upolu from the island to attend school. It was also noted that other students from the island do not continue their education past primary school.

Distance education gained some traction during the pandemic period when schools were closed. Many students were able to continue with their schoolwork by accessing the Moodle platform using their mobile phones. This was facilitated by the Ministry of Education, Sports and Culture to ensure continued learning during the COVID-19 period where the nation was in lockdown and school were closed for a number of weeks in early 2022.

Health services

There is currently no hospital on the island. However, there was a small medical clinic on the island in the past. There are medical practitioners that live on the Manono Island who are currently employed at the *Leulumoega* District Hospital[2] on the main island of Upolu. The Ministry of Health provides health awareness and support to the island on a regular basis including visits by medical personnel as part of its community health programs.

The residents confirmed that **for medical emergencies and check-ups, they must travel to the Leulumoega District Hospital** or the main hospital in Upolu.

Convenience stores

The residents are able to access basic commodities that are sold at seven convenience shops around the island. The shops are replenished by the shop owners who travel to Upolu to purchase the goods and resell on the island. **There is no wholesale or supermarket on the island which, therefore, requires the store owners to travel to Upolu for restocking**.

Accommodation for visitors and tourists

There are two beach *fale* accommodations for visitors and tourists owned by resident families. These also provide entertainment and casual social events for the local residents.

Transportation and logistics services

Transportation and access remain one of the biggest challenges for the residents of Manono-Tai. The only access to the island is through small fishing alias that travel to and from Manono-Tai Uta Wharf on Upolu Island. There are about 30 boats that service the route and are owned by the families on the island.

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[2] Leulumoega District Hospital is located on the island of Upolu. It is approximately 20 minutes from the Manono-Tai Uta Wharf which is located on the north western tip of Upolu.

On the island itself there are multiple drop off zones or makeshift wharfs. These wharfs are in dire need of repair as they are also a safety concern to the residents particularly as these wharfs are built of rocks and resemble seawalls along the coast.

Figure 6 - These repurposed fishing boats are owned by families of Manono-Tai and provide the only means of access to the island

Most families along the coast have a makeshift wharf close to their homes for convenience as there are no cars to travel to and from a central wharf.

Figure 7- Transport Boats View two

The cost of crossing the strait is $50SAT (USD$20) or a round trip of $100SAT (USD$40).

Revenue generation on the Manono Island

Income generation

The island generates revenue from three main sources:

1. **Fisheries** – The residents of Manono-Tai are skilled fishermen and fishing is their main source of income. The residents sell their fish to middlemen on the island who then transport the fish to Upolu to resell.

2. **Handicrafts and local fashion market** – The residents note that another stable source of income is from locally produced handicrafts which are also resold to vendors at the markets in Upolu and Savaii.

3. **Tourism** – There are few tourism operators on the island who noted that they had a steady income stream from tourists visiting the islands prior to the pandemic. They hope to revive their tourism operations now that the borders have reopened.

Figure 8 - Manono-Tai Resident heading to fish & The women's committee weaving fine mats

Figure 9 - Manono-Tai Beach fales

In addition to the above income streams, many residents also receive income from the following sources:

4. **Remittances from families overseas -** Many families on the island report receiving money from relatives overseas which they use to purchase credit, cash power and other daily essentials.
5. **Recognized seasonal employment (RSE) -** Many families also have relatives who have left Samoa on seasonal employment schemes in New Zealand and Australia. They also send money home regularly to support their families and pay for education, basic essentials and church and family commitments. However, residents add that they must make the commute to Upolu and then the 50 minute drive to Apia to access these funds through money transfer companies that are not available on the island
6. **Other -** Other sources of income include boat transportation fares, sewing, catering and some trades.

Manono-Tai digital business transformation

The residents especially those who are engaged in fishing, handicraft making, and small businesses are hopeful for new and innovative ways to improve their financial literacy in order to grow their businesses. They are interested to learn more about how technology can help them do business more efficiently, build a bigger customer base, and market their products.

Commercial development

The types of businesses and services found on the island include those in Table 1 below. This list is not exhaustive:

Business	Services
Fishing	Travel and tours
Convenience shops	Diving
Motels (beach fale accommodation)	Electrical
Boat transport	Plumbing
Sewing	Boat maintenance
Carpenter and builders	
Catering – Samoan dishes	
Arts and crafts	

Table 1 - Types of businesses and services

To ensure the sustainability and growth of small businesses on the island, residents have identified the need for support and capacity building in the areas of:

- Financial management and accounting processes
- Marketing
- Awareness programs for e-commerce and online trading
- Social media marketing

Business owners also need assistance in identifying a broader market base for their products both domestically and internationally.

Access to financial services

There are no financial service providers on the island. However, residents regularly need access to these services which can only be offered on the main island of Upolu. This includes banking services and automated teller machine (ATM), money transfer agencies for easier access to remittances from overseas, and mobile apps that assist with online transactions including Digicel's My Cash app, Vodafone's MTala, MauaPay and others.

ICT and e-commerce in Samoa

Digital transformation is taking place in Samoa at a steady pace. Samoans are increasingly using technology in their day to day lives. Online applications and portals that offer a range of services are becoming increasingly popular in Samoa.

Many businesses also have Facebook accounts that help market and sell their products and connect with potential buyers.

Manono Island businesses can harness this once they can readily access the internet. In order to achieve this, the relevant stakeholders must work together to improve digital infrastructure, raise awareness and build the capacity of the local residents to fully maximize these technological benefits once they become available.

For example, the use of digitized government services offered by agencies as below.

- Samoa National Provident Fund where policy holders can access their funds with the click of a button and the Unit Trust of Samoa where Samoans from all walks of life can invest in their future. - Electric Power Corporation has also rolled out a project to implement smart meters for families and businesses which allows them to top up their electricity online.

- Samoa Water Authority allows for its users to pay for their water bills online. These services would greatly benefit isolated communities like Manono-Tai as they would be able to conveniently access these services online.

Potential workforce

The youth population aged (between 19 – 49) is 257. This indicates that Manono-Tai potential workforce is capable of supporting increased business activity and employment. The youth population would benefit from employment training and upskilling in order to make valuable contributions to the economic development of the island.

Presently, the youth report a lack of viable employment options on the island and some move to Upolu in search of better employment opportunities or take up the RSE scheme to help support their families.

Resilient energy support

The power supply for Manono is sourced via an underwater cable connecting to power sources in Upolu. The power sources are generated from a combination of non-renewable and renewable energy sources monitored from a control center in Fuluasou.

Residents reported experiencing **at least one power outage a month**. They further report that the **power supply fluctuates and the village mayor explained that in his home there are days when only some of the power outlets and lights work**. The school also reported that **at least half of the 15 computers in their lab have been damaged by the inefficient power supply**.

Having a stable and resilient energy supply is essential for any community, but it is especially important for a smart island. Smart technologies rely on a constant and reliable source of power to function effectively, and an interruption in the energy supply can have serious consequences.

To ensure that the island has a strong and resilient energy supply, it is important to consider a range of measures. These could include measures to improve the efficiency and reliability of the energy grid, as well as to reduce the island's dependence on fossil fuels and explore alternative sources of energy. The Government can consider alternative energy sources such as renewable energy like solar and wind to complement the existing source of energy.

By taking these steps, the island can work to ensure that it has a stable and resilient energy supply that can support its smart island initiatives.

Water supply

Water in Manono is sourced from underseas pipes connecting to the Satui Borehole system in Upolu (see Figure 13) and managed by the Samoa Water Authority. **Residents report that while the water supply is clean and fit for consumption, they do experience water shortages and their supply is usually cut off during periods of heavy rai**n. The reason for this varies from leaks in the marine pipes to issues with low power supply to the main borehole pump which delays the flow of water to the island.

A viable solution would be for families on the island to have their own water tanks or a water catchment system for the island.
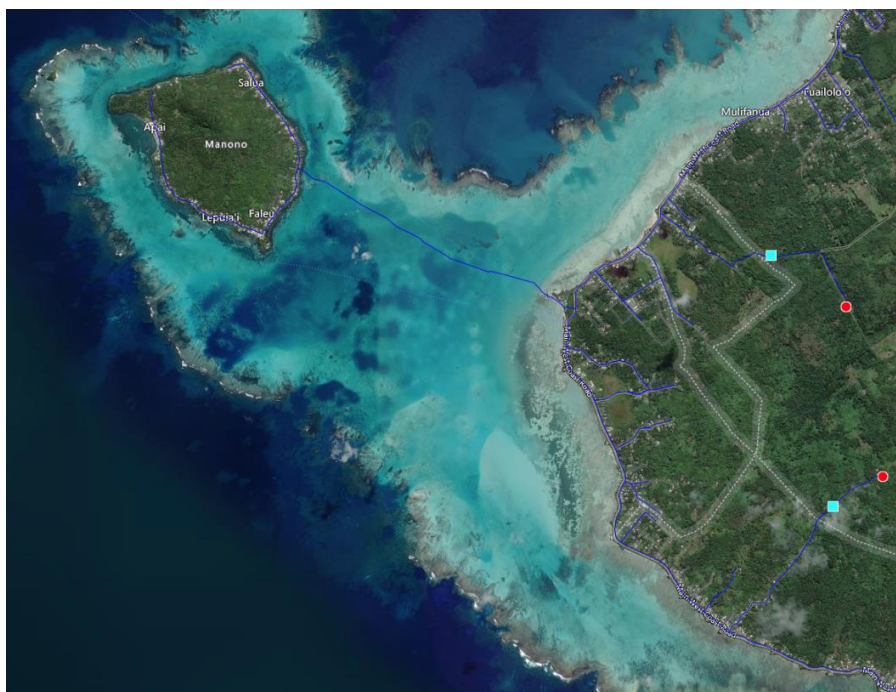
Figure 10 - Manono Island Water system (Satui Borehole pipelines) Map by Samoa Water Authority

Weather and climate change

Like many small island nations, Manono-Tai is not immune to the very real threat of climate change. Changing weather patterns affect many aspects of life in Manono-Tai including destruction caused by natural disasters, disruptions to transport systems and communication networks which are exacerbated by its isolation and geographic location. Manono-Tai's transport systems and their properties and personal belongings were severely impacted by tropical cyclones, strong winds and rough seas in the past. **During times of heavy rainfall and rough seas, it is not safe for residents to cross the strait due to the rough conditions of the ocean. This has also disrupted the flow of goods and resources to the island and make it difficult for people to travel for work or other purposes**.

The residents have reportedly noticed king tides and high waves more frequently occurring in recent years causing damage to their wharfs and property.

In addition to transportation issues, communication on the island can also be disrupted by poor weather conditions.

Goods and services

The goods and services available on the island are limited. The convenience shops on Manono-Tai sell basic commodities including snacks, biscuits, candies, sodas, mosquito

coils and over the counter medication like Magesia[3]. **Cash power and phone credit are not sold on the island**. **Residents have to travel to Upolu to purchase these items as well as food items like frozen meats and canned foods**.

According to the residents, this is also a possible deterrent for visitors who may prefer to visit locations where resources and services are readily available.

Residents state that they would not need to travel to Upolu on such a regular basis if there was a supermarket or store on the island that would have a bigger variety of goods and sell cash power and phone credit.

Summary of socio-economic challenges identified

	Challenges
Education	• While the infrastructure is available for improved education on the island, the human resource capacity gaps are apparent. There are three teachers catering to the two schools. • There is no college on the island. Once students graduate from primary school, some opt to move to Upolu for further education
Health	• There is currently no hospital or clinic on the island requiring travel to Upolu
Commerce	• There is no wholesale or supermarket on the island necessitating travel by shop owners to Upolu for restocking • **Cash power and phone credit are not sold on the island**. • **Residents have to travel to Upolu to purchase these items as well as food items like frozen meats and canned foods**
Travel and logistics	• The only mode of transport to the Manono Island is by small boats which is highly susceptible to disruption due to bad weather and rough seas. In addition, each roundtrip costs USD 40. This has far reaching impact on digital development as it disrupts the entire value chain.
Financial services	• There are no financial service providers on the island. However, residents regularly need access to these services which can only be offered on the main island of Upolu.
Electricity and power	• Residents experience power outages and power supply fluctuates that at times power some outlets and lights, and have in the past damaged at least half of the 15 computers in their lab.
Water	• **Residents experience water shortages and their supply is usually cut off during periods of heavy rain**

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[33] Magesia is a locally produced liquid medication especially for young children to relieve stomach pain and indigestion

Weather and climate change	• Changing weather patterns affect many aspects of life in Manono-Tai including destruction caused by natural disasters, disruptions to transport systems impacting a range of services, and communication networks
Transportation and logistics	• The only access to the island is through small fishing alias that travel to and from Manono-Tai Uta Wharf on Upolu Island. • The cost of crossing the strait is $50SAT (USD$20) or a round trip of $100SAT (USD$40).

Table 2 - Socio-economic challenge of Manono Tai

Digitalization can significantly contribute towards addressing a number of these challenges by improving access to broadband connectivity, enhancing affordability of digital services, improving digital skills and delivering digital services.

Access to broadband connectivity

Telecommunications and broadcasting

The major service providers in Samoa are Vodafone Samoa and Digicel Samoa. **Internet connectivity is only accessible in certain parts of the island, whereas mobile phone connectivity is available in most parts of the island** *(see Figure 4 for internet coverage areas).* Vodafone Samoa has a cell tower located close to the center of the island *(see Figure 5).* **Residents state that parts of *Apai* and *Salua* have internet connectivity issues. Figure 4 below highlights the red zone where internet connectivity is low.**

Figure 11- Internet Coverage Map

Access to digital television is a challenge. Island residents report that only a small part of the village of Faleu on the southeastern part of the island, which is within close proximity to Upolu, have good TV coverage. The community leaders insist that their residents have access to TV not only for entertainment purposes but also to keep them informed on current events. **Radio coverage for both AM and FM stations are good**.

The residents are highly dependent on mobile technology and the internet to communicate with friends and relatives overseas, use social media networks and to access online platforms. The residents have indicated a willingness to use more online services including online banking and e-commerce if these were to become readily accessible to them.

To facilitate this, there is a need for improved internet connectivity on the island as well as its resilience as there is only one mobile telecom service provider in Manono.

Figure 12 - Vodafone Tower

ICT end-user device situation in the Manono Island

Mobile use technology on the island by age is depicted in Figure 10 below. Figure 11 shows the percentage of the population using either Vodafone or Digicel.
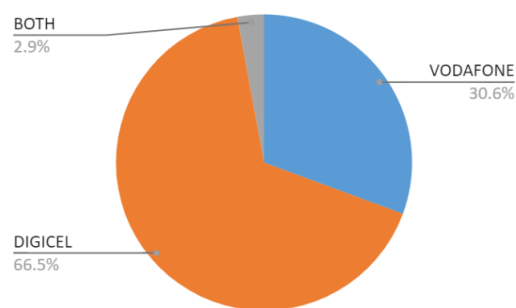

Figure 13 - Mobile Phone by Age

Figure 14 - Mobile Usage by provider
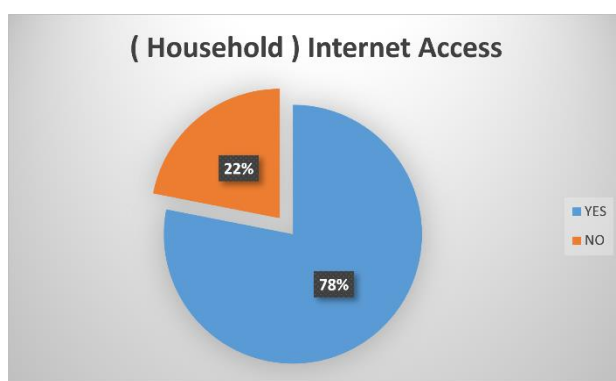
Figure 15 - Households on the Island with internet access

Figure 12 shows the percentage of households with internet access. Most families reported accessing the internet via a mobile device. **Therefore, there is a need for capacity building in ICT with focus on adequate use of mobile devices and applications as well as the security components of mobile phone technology.**

Affordability of connectivity

In Samoa, Broadband prices are currently at 4.96% of the Gross National Income (GNI) against the Broadband Commission benchmark of 5% of GNI by 2020 and 2% of GNI by 2025.

The average Manono-Tai resident spends $15 tala (USD$5) on prepaid or postpaid mobile plans per week. This is used for both voice calling and internet access. Some residents receive mobile top up or phone credit from families and friends overseas on a weekly basis. It is important to enhance the affordability of these services by deploying community based wi-fi networks and connecting schools meaningfully.

Affordability of digital services can be further enhanced by generating greater value to the citizen by bringing in a range of digitally enabled services that can enhance their productivity, provide return on investment, create greater social value (e.g. avoid travel during adverse weather conditions, online pharmacy), and generate savings.

Digital literacy and skills

Digital skills and digital literacy

The use of mobile phones is widespread on the island and this is predominantly how residents access the internet. They mostly use the internet to access social media sites such as Facebook, Tik Tok and Instagram, and students also report using the internet for research and educational purposes.

While the residents are well aware of the benefits of technology for development, they do not actively use it for this purpose. Consequently, capacity building and awareness raising programs on the benefits of technology would be useful to the residents.

Cyber safety and security training

Given the residents used their mobile devices regularly to access the internet, as part of this study, an online safety training course was tailored and delivered to selected residents of Faleu by an ITU expert. This was an interactive training where residents were able to share their online experiences and their concerns with online safety. The training focused on the security of mobile devices including the importance of having strong passwords for their phones and updating the application software used on their phones regularly.

There were then discussions around the use of social media, the dangers of misinformation and disinformation and online scams spread through social media. The residents were particularly interested in the discussions about cyberbullying as they felt this was an area, they felt was important to protect their children against.

At the end of the training the residents were more aware of the importance of cybersecurity and measures they can take to protect themselves from online threats.

Participants

A Cyber Safety training was delivered to 12 selected participants of Faleu. The participants were chosen from a wide demographic as a representative sample of the residents of Manono. They ranged in ages from 15 to 50 years old. Table 2 below shows the participants by age and gender.

Number of participants	

	12
Gender	Male - 7 Female – 5
Age group	15- 24years – 5 24-50years – 4 50+years – 3

Table 3 - Online Safety training

Figure 16 - Residents of Faleu Village during the online safety training

From the training, participants expressed their interest in learning more about technology, the following areas have been identified as training topics to be provided in the future;

A. basic computing and internet use skills,
    i.   Microsoft Office;
    ii.   Effective use of search engines
    iii.   Creating emails

      iv.   Basics of cybersecurity & Cyber safety

B. Online marketing and advertising
      i.   Effective use of social media as a marketing tool
      ii.   Building online presence (website development & online booking systems tourism)
      iii.   Online branding

C. Effective use of online services (offered by Government and private sector)
      i.   Samoa National Provident Fund portal (SNPF)
      ii.   Samoa Water Authority online portal (payment of water bills)
      iii.   Electric Power Corporation online portal (payment of electricity)
      iv.   Online eLearning Platforms (NUS, USP & SITA)
      v.   Ministry of Commerce, Industry and Labour (MCIL) Job Seekers Portal
      vi.   Online Companies registration
      vii.   Unit Trust of Samoa (investments)
      viii.   Ministry of Customs & Revenue (MCR) Electronic Tax System
      ix.   Online banking services
      x.   MTala (online payments)
      xi.   MyCash App (online payments)
      xii.   Frankie Token (online payments)
      xiii.   Online shopping (MauaApp & Samoa Market)

The development of content in relation to the above trainings should be designed and tailored to the needs of the residents. This will require partnerships with relevant Government and private sector agencies to deliver these trainings and help the residents to build their skills.

The necessary digital training and skills building is essential to ensuring Manono-Tai is equipped and ready to embrace digital development and the effective use of technology in their day to day lives.

A Digital hub and central data storage

It is practical for the island to have a training hub where digital training can be delivered to interested residents. The existing infrastructure such as the school building would be an ideal location for the hub as it already has a computer lab. The village mayor has also suggested that the fale komiti (community hall) and the fale sulufaga (disaster emergency shelter) can be used to house a training hub.

Manono-Tai's remote location makes it ideal for hosting data centers for digital storage and serving as a data hub for the country. Its location between Upolu and Savaii also

makes it easily accessible for the entire country to use the infrastructure and share in the resources.

By hosting data centers on the island, the community can generate revenue by providing storage services to businesses and organizations. Many companies rely on data centers to store their information systems, and by hosting these centers on the island, the community can attract a new source of income.

In addition to generating revenue, hosting data centers on the island can also make it easier for the community to access apps and storage services hosted on the island. By having a local connection network on the island, residents and visitors can easily connect to these services and make use of them.

By hosting data centers on the island and offering storage and app services to businesses and organizations, the community can generate revenue and improve its economic situation.

Opportunities and market Gains

Growth of fisheries industry

Fisheries is the main resource in the Manono Island and there is potential to expand this industry. Local fishermen boast of the high quality of their catch. Digital technology can greatly assist in the promotion and marketing of the fish caught in the seas of Manono-Tai and the island can market itself as a leading provider of premier, fresh and top-quality fish.

To effectively build and promote a fishing brand for the island, it will be important to focus on showcasing the unique qualities of the island's fish and highlighting the sustainable practices used by local fishermen. By leveraging the island's online resources and other marketing channels, the community can effectively promote the island as a destination for delicious and sustainably caught fish.

Marine and eco tourism

Manono-Tai has a pristine and untouched marine environment making it an ideal place for marine and eco-tourism to thrive. Better access to technology would greatly assist in promoting such a venture. In addition, there is potential to offer virtual tours of the island and its surroundings, as well as virtual experiences of the marine environment which can promote the island on a larger scale and provide people from all over the world with the opportunity to experience the island way of life from the comfort of their own homes. **Partnerships with interested the Samoa Tourism Authority and private sector investors such as Meta and relevant stakeholders can make this a reality.**

By leveraging its marine environment and offering both in-person and virtual tourism options, the island of Manono can attract a diverse range of visitors and support its tourism industry. This can bring economic benefits to the community and help to support the island's growth and developments.

Hosting of major marine and sea water sports

The island of Manono is well suited to host sea water sports that are becoming increasingly popular today. By promoting the island as a destination for these types of activities, the community can attract visitors who are interested in participating in or watching marine sports.

In addition to hosting marine sports events, the island's landscape and geographic location also provides an opportunity for new types of events, such as drone racing. By setting up a drone racing course on the island and promoting the event, the community can attract visitors who are interested in this type of activity. This would also require partnerships with the relevant authorities including the Ministry of Works, Transport and Infrastructure who authorize and issue drone flying licenses.

Another potential benefit of hosting drone racing on the island is the opportunity to set up a drone training center. This could provide a place for people to come to the island to learn how to fly drones and improve their skills and at the same time market what Manono-Tai has to offer. By offering training and education opportunities, the island can attract a new type of visitor and provide an additional source of income for families.

In addition to the economic benefits of hosting events, there is also the potential for knowledge and skills transfer to the island population. As people come to the island to participate in events or receive training, they can share their knowledge and skills with the local community. This can help to foster a culture of learning and innovation on the island and support the overall growth and development of the community.

The impact of such activities on the environment and long-term effects on the residents can be assessed periodically, and addressed to ensure the viability of such activities.

Community needs and island requirements

The following community needs were identified as part of the needs assessment

1. Improve access to high-speed internet
2. Digital skills training and awareness
3. Digital marketing skills and support for online product exposure with local hubs and facilities
4. Facilitate education using digital technology

5. Improve and promote Government E-Services
6. Start age-specific digital training hubs
7. Make available early warning systems for natural disasters
8. Improve access to healthcare online through hospitals
9. Provide reliable and resilient power support
10. Make available resilient water supply and safe drinking water
11. Facilitate access to financial hubs for banking
12. Support island's fishing brand and marine tourism
13. Build partnerships to sustain the island's smart island development

The important next step is for the Government of Samoa to decide on areas of priorities, scope of the programme and prepare the implementation workplan with the beneficiary communities, relevant ministries and ITU. It is important to note that the programme should receive supports from parties who have technical expertise on the areas of the workplan. For example, if the government decides to prioritise improving reliable power supply, the Department of Energy is the entity to take action in close collaboration with the MCIT. Such agreement and collaboration within the government is critical, and this is what the whole-of-the-government approach advocates.

Figure 15- Image of makeshift wharf that was destroyed by bad weather & Manono-Tai Resident washing dishes with tank water as main water not working

Alignment and linkages to national development strategies

The Smart Islands Samoa Programme complements and continues the National Plan outlined in the Pathway to the Development of Samoa (PDS) for 2021/2022 - 2025/2026. While this programme aims to improve the lives of the people living on the Manono Island through the use of technology and innovative solutions,the PDS outlines the government's vision for the development of Samoa. The Smart Islands Samoa Programme aligns with this plan by promoting sustainable economic growth and improving the standard of living for all citizens.

Further, the Smart Islands Samoa Programme directly aligns with many of the key priority areas outlines in the PDS to alleviate hardship and promote digital innovation and growth.

The projects proposed in this study also directly address *Key Priority Area 7 on Agriculture, Fisheries and Aquaculture Productivity* which notes that the Government is committed to delivering an integrated policy framework that improves domestic production and creates more efficient and effective input and output markets for subsistence and commercial production of agriculture and fisheries. Key *Priority Area 8 on Tourism Revitalization* which highlights tourism revitalization and restoring pre-epidemic and pre-pandemic levels of economic growth. Lastly, it aligns with *Key Priority Area 9 on Business Innovation and Growth* which states that Samoa will embrace the changing times and exploit its vibrant business community to create sustainable jobs which support inclusive economic growth.

Hence, it is clear that the Smart Island Samoa Programme will contribute the implementation of the PDS and further development of Samoa.

Complimenting the SDGs

The Smart Islands Samoa Programme provides areas of community needs that fall under areas of the Sustainable Development Goals (SDGs). Here is how the listed community needs map to the SDGs:

Community Need	SDG Linkages
Digital training and digital skill awareness	SDG 4: Quality education
Reliable and resilient power support	SDG 7: Affordable and clean energy
Improved access to high-speed internet	SDG 9: Industry, innovation, and infrastructure
Financial hubs for banking	SDG 8: Decent work and economic growth
Facilitation of education in digital technology	SDG 4: Quality education
Improved access to healthcare online through hospitals	SDG 3: Good health and well-being
Early warning systems for natural disasters	SDG 13: Climate action
Support for the island's fishing brand and marine tourism	SDG 14: Life below water
Resilient water and safe drinking water	SDG 6: Clean water and sanitation

Digital marketing skills and support for online product exposure with local hubs and facilities	SDG 8: Decent work and economic Growth
Age-specific digital training hubs	SDG 4: Quality education
Building partnerships to sustain the island's smart island development	SDG 17: Partnerships for the goals

Table 4 - Community Needs for Smart Island linkages to SDGs

If implemented effectively, the Smart Islands Samoa Programme will help achieve the global goals, and the model has the potential to scale to other Pacific countries, creating positive impacts and synergies across the Pacific region and moreover, among SIDS communities across the globe.

Proposed development approach

The findings from this study clearly show that there are several areas that need to be addressed as high priorities. A Smart Islands Samoa Programme and its workplan should be established and led by the Government of Samoa to take the benefits of digital transformation to the remote communities of Monono-Tai. Since the most fundamental and common levers of digitization initiatives necessitate infrastructure and skills development on the ground, the ITU team proposes that the Government of Samoa have the following objectives and outcomes as part of the national Smart Island Samoa Programme.

Objective

- To provide affordable, resilient and sustainable access to digital services to the rural and remote communities

Outcomes

- Increased access to affordable, resilient and sustainable access to broadband infrastructure and television
- Increased access to and uptake of digital services

Specific areas that should be addressed include:

- **Broadband connectivity and digital infrastructure:**
  - Reliable and resilient power support
  - Improved coverage and resilience of broadband telecommunication network

- **Affordable access to telecom networks and digital services**
  - Increased affordability of mobile broadband
  - Availability of community wi-fi networks through digital connectivity centers
  - Improved connectivity in school
- **Digital training and digital skill awareness:**
  - Digital training for all ages including basic digital literacy, online safety, digital financial literacy, and accessing digital services;
  - Customized digital skills training on e-commerce, entrepreneurship, digital marketing and other relevant areas based on training needs conducted annually;
  - Digital skill awareness campaign aimed at enhancing community's readiness to harness the power of digitalization online;
- **Priority digital services:**
  - Facilitation of e-education
  - Digital government services
  - Improved access to healthcare
  - Early warning systems for natural disasters
  - Supporting island's fishing brand and marine tourism
  - Online marketing and support for online product showcase with local hubs and facilities
  - Online banking and an ATM (for easier access to finance and cash)
- **Strengthening support:**
  - Building strong stakeholder efforts and interest
  - Building partnerships to sustain the island's smart island development

Additionally, there should be a focus on enhancing digital services and electric power support.

These need assessments should be revisited annually to check the progress and identify new needs. Clear prioritization of needs should be made and agreed among stakeholders as well.

Strengthening the collaboration

It is recommended that the following collaborations and support are necessary for this programme to succeed. The order of priority is also suggested in the Table 5 for the Government of Samoa's consideration.

Priority order	Community Needs	Potential Providers and Partners

1	Resilient and high-speed internet access	Ministry of Communications and Information Technology (MCIT) Office of the Regulator (OOTR) Samoa Submarine Cable Company (SSCC) Vodafone Samoa Digicel Samoa ITU UNDP UNESCAP Samoa IT Association (SITA)
2	Digital training and digital skill awareness	Ministry of Education Sports and Culture (MESC) National University of Samoa (NUS) University of the South Pacific (USP) Australia Pacific Training Coalition (APTC) Samoa IT Association (SITA)
3	Digital marketing skills and support for online product exposure with local hubs and facilities	Samoa Tourism Authority (STA) Ministry of Commerce Industry and Labor Ministry of Customs and Revenue. Ministry of Education Sports and Culture (MESC) National University of Samoa (NUS) University of the South Pacific (USP) Samoa IT Association (SITA) Australia Pacific Training Coalition (APTC) ITU UNESCAP
4	Facilitation of education using digital technology	Ministry of Education Supports and Culture Samoa Qualification Authority Ministry of Education Sports and Culture (MESC) National University of Samoa (NUS) University of the South Pacific (USP) Australia Pacific Training Coalition (APTC) Samoa IT Association (SITA) ITU UNESCO UNDP
5	Improve and promote Government E-Services	Ministry of Communications and Information Technology (MCIT) Public Services Commission (PSC)
6	Age-specific digital training hubs	Ministry of Education Sports and Culture (MESC) National University of Samoa (NUS) University of the South Pacific (USP) Australia Pacific Training Coalition (APTC) ITU UNDP UNESCO
7	Early warning systems for natural disasters	Ministry of Environment and Natural Recourses

		Ministry of Communications and Information Technology (MCIT) Ministry of Policy and Prison. Samoa Fire Authority (FESA) ITU UNDP
8	Improved access to healthcare online through hospitals	Ministry of Health Ministry of Communications and Information Technology WHO UNDP
9	Reliable and resilient power support	Ministry of Works, Transport and Infrastructure (MWTI) Electric Power Cooperation (EPC)
10	Resilient water and safe drinking water	Ministry of Works, Transport, and Infrastructure (MWTI) Samoa Water Authority (SWA) Private Sector Water Companies
11	Financial hubs for banking	Ministry of Finance Central Bank of Samoa Vodafone Samoa Digicel Samoa ANZ Bank, BSP Bank, SCB Bank, NBS Bank
12	Support for the island's fishing brand and marine tourism	Ministry of Agriculture and Fisheries Samoa Tourism Authority FAO UNESCAP
13	Building partnerships to sustain the island's smart island development	Ministry of Foreign Affairs and Trade Ministry of Finance Ministry of Communications and Information Technology (MCIT)

Table 5 - Priority List of Strengthening of collaborations for potential provides and partners

Establishing the governance mechanism

Development of the Smart Islands Samoa Programme.

The success of the program will depend largely on the cooperation at the grassroots level. It is therefore essential for the Komiti a la pulenuu (Mayor Working Committee) to embrace the project and establish working committees (as needed) on specific issues. It is important that the comittee's are aware of the whole-of-government approach and the

critical role they play. At the national level, the Smart Islands Samoa Programme is recommended to be championed by the Digital Transformation and Innovation Unit DTIU within MCIT.

Development of the work plan for the Smart Islands Samoa Programme,

The program should develop a workplan (in close consultation with the Mayor's Committee) illustrating the activities and action at all levels, and the role of each entity.

This work plan should include the following:

a. **Development of the TOR (Terms of Reference).** This will outline the roles and responsibilities of implementation stakeholders at the different levels – high level and grassroots level.
b. **Partners and the support envisaged:** This will outline the partnerships and collaborations that will be crucial to the success of the project, and how they will be supported and nurtured.
c. **Stakeholders engagement and community empowerment.** This plan will identify the key stakeholders in the project and outline how they will be involved and empowered to contribute to the project's success.
d. **Awareness and capacity Building**. This will outline the efforts to raise awareness and build capacity among stakeholders and the wider community, including training and education programs.
e. **Development of a sustainability plan:** This will outline the resources needed to sustain the project over the long term, and how they will be secured and managed.
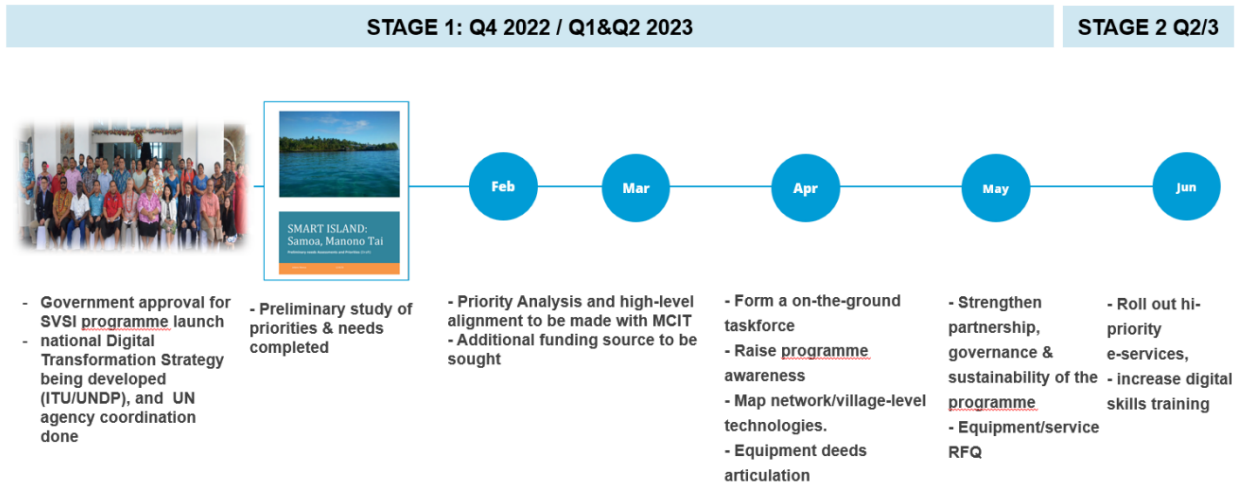
Action plan

Figure 17 - Smart Island Manono-Tai timeline

Short term actions going forward

A short-term action plan must be put in place at different levels to ensure initial implementation of the project. This includes:

1. **The community level and island level**
    a. Establishment of a working group under the Mayor's committee at the village level to be the main point of contact between the village and the project stakeholders;
    b. Provide capacity building training at the community and grassroots level. This can also help identify committed residents who can then continue to train residents and maintain sustainability of the project.
    c. Create a digital hub or center to promote innovation and enhance digital learning amongst the local residents.
    d. Identify the committed individuals who are capable of handling tasks including logistics support and contact management as well as administrative tasks to support the digital hub. Form the island-level taskforce formally.
    e. Implement work plan to launch and promote these activities

The government level or national level

f. Assist with implementation of the Action Plan above and provide necessary support for the project
g. Formalise all Stakeholders and Partner agreements to affirm long term commitment to the project
h. Formulate a Working Group/Committee that oversees the progress of the project and appoint MCIT as the Chair
i. Complement the Sustainability Financial Plan to focus on the support of the five sectors, Communications, Education, Tourism, Health and Infrastructure that are directly linked to the Smart Islands Samoa Programme and relative support to Ministries that add to the projects capacity.
j. Identify opportunities to collaborate with other governments in knowledge sharing particularly in the implementation phase.
k. Ensure that both the Government level Committee and the Community level Committee for the project are well aligned during the different phases of the project.
l. Government to continue to encourage the Development of National applications in the areas of Digital and Internet.

2. **International Telecommunication Union (ITU)**
   a. Continue to support the Government implementation of the Smart Islands Samoa Programme.
   b. Assist the Government in all aspects of project requirements
   c. Assist and introduce the Government to valuable partners that can collaborate to provide joint interest in the success of the project from various domains.
   d. Provide the Government with project advice
   e. Assist with technical needs arising from the project

Preliminary recommendation
1. Initiate a Manono-Tai Island programme
   - Align the setup of the Manono-Tai Island Programme Committee with the TOR noted in the action plan. This includes the setup of the Steering Committee with relevant representatives from ministries and ITU.
   - For Government to develop all the necessary plans noted in the action plan and other plans to assist with the initial work of the Smart Islands Samoa Programme.
2. Ensure that the stakeholder engagement plan is well developed and that all Stakeholders have their contribution and voice heard during the development of this plan. Improved coverage and high-speed internet access

- Identify areas of potential collaboration between communication providers (Vodafone and Digicel) to improve the coverage on the Manono Island
- Encourage collaboration between relevant government agencies to communication to ensure government support in efforts to improve connectivity
- Develop local wifi connectivity – merge with other projects

3. Digital training and digital skill awareness
   - Engagement and collaboration with the Ministry of Education, Sports and Culture and education providers
   - Develop a Digital Capacity and Skills Program
   - Discuss areas of collaboration with existing digital training providers
   - Work with Universities and Post School Education and Training (PSET) in developing basic digital training to enhance residents understanding and build their capacity.

4. Reliable and resilient power support
   - Work with Partners in the power and energy sector to ensure that the island has adequate power supply to support the current power consumption and future developments required for the Smart Islands Samoa Programme.

5. Improved access to healthcare online through hospitals.
   - Liaise with the Ministry of Health to develop digital resources to complement Remote Health Support.
   - Seek partners who may have interest in investing in this area or provide financial assistance

6. Early warning systems for natural disasters
   - The Government of Samoa currently has a Climate Early Warning System (CLEWS) which enables improved access to climate information, improved climate services to vulnerable sectors and builds resilience through Disaster Risk Reduction and Climate Change Adaptation. CLEWS is managed by the Meterological Division (MET) under the Ministry of Natural Resources and Environment (MNRE)
   - Establish partnership with MNRE to introduce CLEWS to Manono-Tai
   - Seek partners who may be able to provide support in developing an online alert system for mobile.

7. Support for the island's fishing and marine tourism

- Work with the Ministry of Agriculture and Fisheries to better promote the Fishing on the island as a viable resource and harness digital technology to assist with developing the fishing industry
-

8. Work with the Samoa Tourism Authority (STA) to promote the island for its ecotourism and marine lifeBuilding partnerships to sustain the island's smart island development
   - Continue to seek out and build partners that can assist in the long-term goals of the project.
   - Look for opportunity brought by the Smart Islands to build regional collaboration and information sharing for concepts on the Smart Village and Smart Island programme development.

Conclusion

The Smart Islands Samoa Programme has the potential to revolutionize digital solutions in Samoa and serve as a catalyst for other neighboring countries. The island's remote location and small relative size make it an ideal location for such a project, particularly in terms of long-term sustainability if well planned. To ensure the success of the Smart Islands Samoa Programme, it will be necessary to focus initially on a few key areas, including improvements in broadband, providing digital training and awareness, enhancing digital service delivery and support structures, improving transport and logistics support, and securing strong partnerships and investment commitments. By addressing these issues and investing in the necessary resources and infrastructure, it will be possible to effectively implement the project and achieve its goals, bringing transformative digital solutions to the Manono Island. Samoa is already making strides in the digital space, with various sectors prioritizing ICT and digital transformation. The Smart Islands Samoa Programme presents an opportunity for these sectors to invest in and test new and innovative digital ideas.

In addition to aligning with the targets of the Sustainable Development Goals (SDGs), the Smart Islands Samoa Programme also supports Samoa's national development plans and commitments. It has the potential to set new standards in the digital space and contribute to Samoa's National Digital Agenda, while also empowering communities and ensuring access to health services, knowledge resources, and economic growth. This project has the potential to build strong digital leaders of the future and create a sustainable ecosystem of digital services that improve quality of life and bring benefits to digital communities.

Despite its ambitious goals and potential benefits, the Smart Islands Samoa Programme will require significant support and resources to be successful. Samoa will need the

assistance of various United Nations agencies, including the ITU (International Telecommunication Union), UNDP (United Nations Development Programme), UNESCO (United Nations Educational, Scientific, and Cultural Organization), FAO (Food and Agriculture Organization), UNESCAP (United Nations Economic and Social Commission for Asia and the Pacific), ILO (International Labor Organization), and other international partners to achieve its goals. These agencies have the expertise, resources, and networks to support the development and implementation of the project and can provide valuable assistance in areas such as technology, infrastructure, training, and financial management. By partnering with these organizations, Samoa can tap into a wealth of knowledge and experience, and leverage the resources and networks needed to make the Smart Islands Samoa Programme a reality.

The successful implementation of the Smart Islands Samoa Programme will not only benefit Samoa, but it will also contribute to the overall development of the region and support international agreements to improve living standards. As a small island state, Samoa has the potential to serve as a model for other countries looking to adopt and implement similar projects. By embracing and investing in digital solutions, Samoa can continue to play a key role in improving the region and meeting its commitment to international agreements.

The Smart Islands Samoa Programme has the potential to have a transformative effect on Samoa, not only in terms of economic growth and development, but also in terms of improving the quality of life for its people and those who visit. By providing access to advanced digital resources and services, the project can help to improve health care, education, and other essential services, ultimately leading to better living standards for all. This will further enhance Samoa's reputation as a destination for innovation and progress and contribute to its overall attractiveness as a place to live, work, and visit. With what many continue to call "Beautiful Samoa".