



**Universal Access and Service (UAS)
Strategic Plan 2023-2027**

DRAFT

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1. UAS Context

Since its establishment under the National Information and Communications Technology Act 2009 (the Act), the Universal Access and Service (UAS) regime/Fund has been implemented by NICTA and the UAS Board with objective to promote the long-term economic and social development of Papua New Guinea. UAS activities over the years has included the implementation of a number of UAS projects as well as the development and implementation of its first ever Strategic Plan over the five (5) year period from 2018 to 2022.

A review of the 2018-2022 strategy, assessments of modern ICT development trends combined with alignment with guiding Government policy objectives and priorities in the ICT sector including NICTA's Corporate Plan 2021-2025, have culminated in the development of this UAS Strategy 2023-2027. The strategy is developed by the UAS Board in consultation with NICTA and takes into account the aspirations of the Government in the UAS space and seeks to realise a connected PNG that harnesses and maximises the advantages of digital resources for Government, businesses and citizens.

The plan responds to the changing digital connectivity landscape which in the recent past has been influenced largely by the COVID-19 Pandemic. Connectivity has now globally become essential for everyday activities of doing business, learning, socially interacting.

2. UAS Fund Mission and Vision

The plan sets out the Mission and Vision of the UAS Board and NICTA in relation to the utilization of the UAS Fund to support of the development of the ICT sector in Papua New Guinea.

2.1. UAS Fund Mission Statement

The UAS Board and NICTA will utilize the UAS Fund to support investments in the ICT sector in Papua New Guinea, to promote universal access to and utilization of modern ICT services throughout the country. UAS Fund resources may be employed to subsidize the costs of infrastructure, networks, facilities, services, equipment, applications, content, and human resource development. The Fund will be utilized to underwrite investments and costs for market segments that would not otherwise be commercially viable. NICTA will strive to manage the Fund in an equitable, cost effective, transparent, and competitively neutral manner.

2.2. UAS Vision

The vision for this UAS Fund Strategy is informed by the experience of implementing the UAS Strategy 2018-2022 as well as drawing directly from the Papua New Guinea Government's vision enshrined in the UAS Policy "to transform the nation to become a fully modern, prosperous, and integrated digital/information age economy and society¹". The UAS Strategy also adopts the key UAS Policy objectives to achieve accessibility, availability, affordability, utilization, and meaningful and sustainable connectivity within the planning period encompassed in this UAS Fund Strategy.

The UAS Board's and NICTA's vision for the medium-term development of the ICT sector to enable digital transformation in Papua New Guinea encompasses the following goals:

- Universal access to coverage of 4G+ mobile broadband networks and services for all PNG citizens and communities;

¹ Draft Papua New Guinea Universal Access and Service Policy 2022

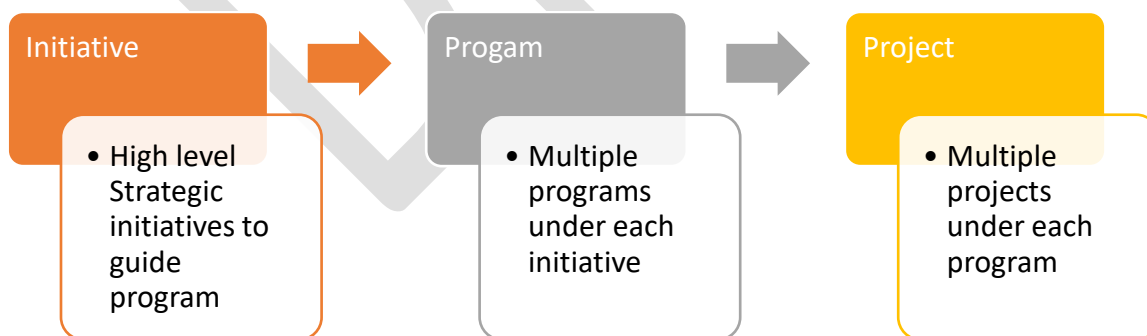
- Wide access to advanced, high quality, broadband telecommunications networks and services, and increasing utilization of these services throughout society;
- Expansion of access to free over-the-air radio and television broadcast signals;
- Development and adoption of a broad array of useful and valuable ICT applications and content for all segments of the population;
- Increasing awareness, capacity, and contribution by all citizens in ICT-based activities, business and employment, and public services;
- Growing contribution of advanced and innovative ICTs to support inclusive socioeconomic development and opportunity.

This vision is closely aligned with both the Papua New Guinea Development Strategic Plan (DSP) 2010-2030, and the Papua New Guinea Vision 2050. The DSP 2010-2030 defined one of its priority goals as: “A modern and affordable information and communications technology that reaches all parts of the country.” It also identified several specific targets for ICT growth, including 800 mobile subscribers per 1000 population, 70% using the Internet, and 100% access to radio and television. The targets for this UAS Strategy would meet or exceed those objectives.

Also, the Vision 2050 includes a range of Strategic Focus Areas for PNG development, which will be enabled and reinforced by expansion of access to high quality ICT services. These include, among others, Human Capital Development, Gender, Youth and People Empowerment, Institutional Development and Service Delivery, and Spiritual, Cultural and Community Development.

3. UAS Initiatives

The UAS Board and NICTA will implement a set of Programs under three (3) Initiatives during the five-year planning period. In general, the Programs will be implemented through a series of Projects, which NICTA will design in consultation with relevant stakeholders and officials, subject to the approval of the UAS Board and the Minister. Where appropriate, UAS Projects may combine elements of multiple Initiatives and Programs within certain geographic areas. The range of specific UAS Projects to be implemented under each Program will be set forth in each fiscal year’s UAS Projects Report, and the detailed specifications of each such Project will be defined on a case-by-case basis, according to the parameters of any operating plans and priorities, and prevailing ICT sector development trends. All UAS Projects, and overall UAS Fund Operating Plans, will take account of available Fund financial, technical, and human resources.



The descriptions that follow provide the main features and parameters of each UAS Program and of the UAS Projects to be implemented.

3.1. Broadband Initiative

Objective

The objective of the Broadband Initiative is to facilitate the expansion of broadband network coverage throughout all unserved areas and populations of PNG, toward the goal of Universal Access and Service in broadband.

Targets

The targets and priorities for this objective are defined as follows:

- Targets: 100% of PNG’s population covered by reliable advanced wireless mobile telecommunications network signals (at least 4G+ quality) as well as increased coverage of fixed broadband services
- Priorities: Establishing at a minimum 4G mobile network point of presence (mobile tower site and coverage) in all unserved Local Level Governments (LLGs) and fixed broadband services deployed in all schools, health centres and local government offices

3.1.1 Program 1- Mobile Broadband

The UAS Fund will provide support for the expansion of 4G mobile network coverage into geographic areas that are currently not within the range of 4G mobile broadband signals, or where only lower-speed 2G (voice-text) and 3G service access is available, and where signals are poor and inadequate. True Universal Service in modern mobile telecommunications will be achieved only when all PNG households and businesses are fully covered by advanced networks, and when these communication services are available and affordable for all citizens.

Three (3) related Projects will be implemented to achieve this mobile broadband target;

- Greenfield (4G network expansion) Projects
- 2G-4G Upgrade Projects
- Blackspot Projects

The number and location of projects identified for the mobile broadband program may vary in taking into account market movements in investments in network infrastructure and other factors which may become relevant including Government priority locations/areas such as the Connect PNG Program areas. The specific projects shall be finalized through a consultative process with all necessary stakeholders including operators, prior to approval by the Minister for ICT and implementation in each year.

The proposed projects for Program 1 have been identified through an access gap analysis conducted by NICTA primarily using mobile network data from operators.

(i) Greenfield Projects

This project will support the establishment of new 4G infrastructure and facilities in areas with no 4G infrastructure and service.

The number and distribution of proposed projects are summarised below in Table 1. The complete list of project sites for Mobile Broadband is provided in Annexure 1 – Greenfield Project Sites.

Table 1: Greenfield projects distribution by province.

Province	Region	Year1-2023	Year2-2024	Year3-2025	Year4-2026	Year5-2027	Total
Western	Southern						0
Gulf	Southern		1		1	1	3
Central	Southern			1	1	1	3

NCD	Southern						0
Milne Bay	Southern	3	2	3	3	1	12
Oro	Southern	1	1			2	4
Southern Highlands	Highlands	1	1	1	2		5
Enga	Highlands	1	3		1		5
Western Highlands	Highlands					1	1
Chimbu	Highlands		1	1	1	3	6
Eastern Highlands	Highlands			3	1	2	6
Morobe	Momase	4	3	2		3	12
Madang	Momase	1	2		1	1	5
East Sepik	Momase	1	1	1	4	1	8
West Sepik	Momase	1	1	4	2	2	10
Manus	Islands		1	1	2	2	6
New Ireland	Islands			2			2
East New Britain	Islands	2					2
West New Britain	Islands		2				2
AROB	Islands	1			2	2	5
Hela	Highlands	2			1		3
Jiwaka	Highlands	1					1
Total		19	19	19	22	22	101

(ii) 2G-4G Upgrade Projects

This project will support capacity upgrades to any BTS locations where only 2G service is currently available to 4G.

The number and distribution of proposed projects are summarised below in Table 2. The complete list of project sites/locations for Mobile Broadband Upgrade projects is provided in Annexure 1 – Upgrade Project Sites.

Table 2: Upgrade projects distribution by province.

Province	Region	Year1-2023	Year2-2024	Year3-2025	Year4-2026	Year5-2027	Total
Western	Southern						0
Gulf	Southern	2			2	3	7
Central	Southern			1	5	4	10
NCD	Southern						0
Milne Bay	Southern	6	7	9	4		26
Oro	Southern	3	4				7
Southern Highlands	Highlands	1	6	4			11
Enga	Highlands	8	9	2			19
Western Highlands	Highlands		2	1			3
Chimbu	Highlands	1	5	4			10
Eastern Highlands	Highlands	2	1	1			4
Morobe	Momase	6	5	5	3	6	25
Madang	Momase	2	2	3	4	1	12

East Sepik	Momase	4		1	2	6	13
West Sepik	Momase		6	8	6	4	24
Manus	Islands		2	3		1	6
New Ireland	Islands	4	3	4			11
East New Britain	Islands		5	1	3	2	11
West New Britain	Islands			2	4		6
AROB	Islands	6	2	3	4	4	19
Hela	Highlands	2	5				7
Jiwaka	Highlands	7					7
Total		54	64	52	37	31	238

(iii) Blackspot Projects

This project is aimed at improving 4G signal in areas within coverage but do not have sufficient mobile signal strength, which will be capable of offering advanced services.

Project sites/locations for the Blackspot project will be determined through feedback from operators and mobile subscribers. The projects will involve the potential deployment of small cell technologies to a localized blackspot area.

3.1.2 Program 2 - Fixed Broadband

Objective

Fixed broadband connections also represent an important component of ICT infrastructure, especially for businesses and institutions, but also for many households and other users. The UAS Fund will promote and support the continued expansion of fixed broadband networks and services to locations without such networks. This expansion will not be limited to traditional ISPs or networks but also include community or local based cooperatives or networks.

Targets

Target public institutions include universities and schools, hospitals and health clinics, agricultural centers, local government offices, and other key public locations. These locations may be in LLGs with no existing fixed telecommunications service, or in areas where current service is poor and inadequate to allow for useful broadband connectivity. In addition, this program envisions providing public access via MSME Incubation Centres, Community Information Centers, allowing citizens to obtain affordable broadband services as well as training and technical support. The overall goal is to establish Community Broadband network access and facilities in a limited number of locations in larger population centers, with longer term plans to continue expansion of such services nationwide.

NICTA will collaborate with relevant government and private sector agencies and institutions to coordinate planning, implementation, and operation of institutional broadband connections and facilities, to ensure that broadband network development projects deliver needed capacity, services, and other ICT resources to all project locations.

- Targets: Approximately 105 sites over 5 years
- Priorities: District and LLG capitals/headquarter towns/stations

Six (6) categories of projects targeting the key UAS focus areas of the Government will be implemented as described below:

- (i) **Connect the Schools Projects** - to establish managed fixed broadband connectivity in schools throughout PNG

- (ii) **Connect our Medics** – to establish managed fixed broadband connectivity in health centres throughout PNG
- (iii) **Connect our Farmers** - to establish managed fixed broadband connectivity in agricultural institutions throughout PNG
- (iv) **MSME ICT Hubs** – to establish facilities with fixed broadband and necessary ICT services which will offer technical resources, training, start-up assistance, digital marketing portals, and other support for ICT entrepreneurs.
- (v) **Community Networks** – to establish community/village level network operators to provide community broadband and applicable ICT services.
- (vi) **Local Government Offices** – to support the Government’s Digital Transformation objectives by establishing broadband connectivity, equipment, applications, and skills development projects to local government administrations.

(i) Fixed Broadband Projects

The distribution of Fixed Broadband Projects over the five-year period is summarised in the Table below. The specific location of projects will be identified through a consultative process with all relevant stakeholders prior to approval by the Minister for implementation each year.

Table 3: Fixed broad projects.

Project	Year1-2023	Year2-2024	Year3-2025	Year4-2026	Year5-2027	Total
Connect our Schools	4	4	4	4	4	20
Connect our Medics	4	4	4	4	4	20
Connect our Farmers	4	4	4	4	4	20
MSME ICT Hubs	4	4	4	4	4	20
Community Networks	1	1	1	1	1	5
Local Government Offices	4	4	4	4	4	20
	21	21	21	21	21	105

3.2. Meaningful Connectivity Initiative

Objective

This initiative focuses on the demand side of ICT development objectives, to ensure that citizens, communities and businesses are able to gain the most benefits from the installation and availability of advanced broadband ICT networks and services. Different groups of users will find value in different types of ICT applications, functions, devices, and services, but there will in all cases be a wide scope of potential uses for citizens, businesses and government.

The focus of this initiative is on providing support for citizens to achieve secure telecommunications/ICTs for digital development for all. The following topics can be considered as the supporting components of this program: fostering digital literacy and raising awareness of cybersecurity issues and best practice; strengthening the security of users online and promoting consumer protection; promoting digital skills development and digital training programmes, including training for public authorities; investment in secure infrastructure, particularly in underserved areas.

Targets

Projects under this initiative will support the development of meaningful applications and content, digital skills development, and seek to make devices including computers and smart mobile devices affordable to all citizens and businesses throughout the country.

These can be accomplished by developing meaningful applications and content, and by making computers, tablets and smart phones more affordable.

There are three (3) main components to this initiative, which can be implemented through independent UAS Projects or in combination with other Fund Programs. These are:

- Digital Literacy
- ICT Applications and Content
- Device Support

Specific individual Projects will be designed by NICTA and the UAS Board, in consultation with appropriate public officials and other stakeholders with the intention to stimulate and encourage more user uptake amongst the population, especially the offline populace for meaningful applications and contents apart from social media.

3.2.1 Program 3 - Digital Literacy

This program will support training/capacity building activities that increase utilization of ICTs by all citizens, businesses and government/public offices, to achieve a broader contribution of ICTs to social and economic development, consistent with the Government's national development objectives.

UAS Projects under this component will help enhance capacity, understanding, and experience in relation to ICT services and applications, and opportunities that these technologies can present in people's daily lives.

The Digital Literacy Projects developed by NICTA in collaboration with public, private, and civil service organizations and will be implemented through partnerships with the ICT industry, education/training service providers, and key government agencies including the Department of ICT (DICT).

(i) Training Component for the Fixed Broadband Connectivity Project

All Fixed Broadband Projects will include a training component under which recipient communities will receive basic digital skills training.

(ii) Public Awareness and Capacity Building to support Digital Government Plan 2023-2027 (DGP)

Projects intended to support the DGP particularly for capacity building will be implemented under the guidance of the DICT

(iii) Public Digital Skills Training Project

Delivery of digital skills training for interested members of the public through identified/selected/established Digital Hubs/ICT Incubation Centres at the Basic and Intermediate Levels as classified by the ITU.

3.2.2 Program 4 - ICT Application and Content Development

This program focuses on support for the development of relevant electronic information content and applications of value to PNG citizens, as a key input to the national ICT ecosystem. The main goal is to create and reinforce a robust enabling environment for software programmers, applications developers, information services, media organizations, and any public and private entities interested in sharing knowledge via electronic means.

UAS Projects under this component will be developed together with partner organizations and agencies with the aim of delivering new meaningful applications and content services, which should become self-sustaining over time and be of interest and relevance to the target user populations in PNG. The other key focus for the program is to support the DGP 2023-2027 by providing support for e-government applications and content development.

(i) Digital Government Applications and Content Projects

This project will support development of e-government applications and content to enhance/improve government service delivery, particularly in the remote/rural areas of PNG.

(ii) Public Applications and Content Projects

This project will support development of meaningful ICT applications to encourage innovation amongst (young) PNG software programmers, application developers and content creators. Developments in these projects should enhance sectors such as agriculture, education, health, financial services, and general MSMEs and other sectors areas as identified during specific UAS project design process.

3.2.3 Program 5 - Affordable Smart Devices

This program will support UAS projects to ensure that appropriate and fully functional devices can be made affordable to all who need them, via a combination of programs, partnerships, incentives, and other mechanisms.

(i) Smart 4G Mobile Devices Projects

This project will ensure the availability of smart 4G mobile devices at affordable/discounted costs to citizens and businesses in Mobile Broadband project areas.

(ii) Fixed Broadband Devices

This project will be implemented in combination with the Fixed Broadband Program and will support the provision of computers and other equipment to ensure fixed broadband services utilisation is maximized in the project areas.

(iii) Set-top Boxes

This project will support transition to Free-to-air Digital TV services in PNG by subsidizing to the extent required the availability and affordability of digital TV set-top boxes in broadcasting project areas.

(iv) Satellite Terminals

Provision of terminals to rural and remote communities.

3.3. Broadcasting Initiative

Objective

Broadcasting services over television and radio which will continue to be important means of increasing access to information for the populace remain a priority of UAS fund support. Programs under this initiative are aimed at the expanding free-to-air/view broadcasting network coverage particularly in rural areas. The initiative also seeks to promote local media/broadcast content of relevance to PNG's social and economic development.

Targets

- Radio - by 2027 100% of the population will be within reach of at least radio broadcasting signals, especially emergency communication broadcasts
- Television – by 2027, all district capitals and at least 1 LLG in every district to have Free-to-air TV services available.

The broadcasting initiative will be implemented under two (2) programs:

- Radio Broadcasting

- Free-to-air Television

NICTA will endeavor to create a conducive regulatory environment including licensing and efficient use of resources such as spectrum and infrastructure sharing mechanisms that will help to minimize service coverage expansion costs. The increase in broadband penetration also provides a useful platform for the broadcast industry to capitalize on IP TV/radio.

3.3.1 Program 6 – Radio Broadcasting

This program will support projects to expand radio broadcasting service to rural areas currently uncovered by radio broadcasting signals. The program will also support radio broadcast operators' preparatory and migration exercises from analogue to digital radio broadcasting.

(i) Radio Broadcasting Projects

Radio broadcasting projects will target provinces, districts, LLGs or towns without any radio broadcasting services. Specific locations and scope of projects will be finalized each year by NICTA and the UAS Board in consultation with relevant stakeholders prior to approval by the ICT Minister for implementation.

Proposed locations over this planning period are tabulated below.

Table 4: Distribution of proposed locations for radio projects.

	Year1-2023	Year2-2024	Year3-2025	Year4-2026	Year5-2027
Project locations	Tari	Kavieng	Kiunga	Kainantu	Arawa
	Western	Hela	Chimbu	West New Britain	Jiwaka
	Northern	Enga	West Sepik	AROB	Manus

3.3.2 Program 7 – Television Broadcasting

In addition to the expansion of current analog TV broadcasting to unserved areas, Projects for television broadcasting services will also focus on migration from analog television broadcasting to digital television broadcasting (A2D).

(i) Television Broadcasting Projects

TV broadcasting projects will have the main provincial centres without any free-to-air local TV services prioritised. Support for TV service coverage expansion to rural areas/districts will coincide with network build out/roll out plans of operators.

Specific locations and scope of projects will be finalized each year by NICTA and the UAS Board in consultation with relevant stakeholders prior to approval by the ICT Minister for implementation. The list and distribution of proposed projects for TV broadcasting are tabulated below.

Table 5: Proposed TV broadcasting project locations.

	Year1-2023	Year2-2024	Year3-2025	Year4-2026	Year5-2027
Project locations	Lae	Kimbe	Milne Bay	West Sepik	Southern Highlands
	Hagen	AROB	Madang	Western	Gulf
	Kokopo	Manus	Wewak	Hela	Kainantu

4. Budget

Based on initial estimates of expected mandatory UAS Fund contributions, GoPNG and donor support, NICTA forecasts the following approximate levels of Fund income over the planning period from 2023 to 2027. This forecast assumes that licensed operators will contribute up to 2% of their

revenues annually as advised by the UAS Board and determined by NICTA. The resulting contribution amounts are conservative estimates, and don't take account of possible other sources of Fund contributions, or higher industry revenue growth.

Specific budget allocations for UAS Projects under each Initiative and Program will be determined in the development of annual Operational Plans, following these budgetary guidelines.

The summary of estimated budget allocation for each Initiative in each year, following from the above total budget forecast are provided below.

4.1. Budget Summary

The Strategic Plan forecasts a yearly budget amount of around K32 million with over K28 million budgeted for the Broadband Initiative. The Meaningful Connectivity and Broadcasting Initiatives annually make up K1.2 million and K2.6 million respectively.

Table 6: Strategic Plan Budget summary by UAS Initiatives.

Program	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Broadband Initiative	28,450,000	28,450,000	28,450,000	28,450,000	28,450,000	142,250,000
Meaningful Connectivity Initiative	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	6,000,000
Broadcasting Initiative	2,600,000	2,600,000	2,600,000	2,600,000	2,600,000	13,000,000
	32,250,000	32,250,000	32,250,000	32,250,000	32,250,000	161,250,000

5. Enabling the Delivery of the Plan

NICTA envisages the effective delivery of this Plan to require the commitment of all stakeholders including Government agencies, the ICT industry, international and local partners combined with the UAS systems and processes. Key areas of focus to enable effective delivery are highlighted below.

Resourcing the Plan

Operationalising this Strategic Plan 2023-2027 will require significant increase in resources in the key areas of project management human resource at the operational level, funding, innovative regulatory support, strong leadership and representation at the management, Board, and political levels.

Partnerships

Strong and effective partnerships between the Government through NICTA and the DICT with other relevant Government agencies, industry players and local and international development bodies is key to deliver the plan successfully and realizing the goals set forth in this plan.

Risk management

The dynamic nature of the ICT industry and evolving demands on ICT coupled with stringent processes internal and external to the UAS regime require a risk management framework that is adequately resourced and implemented effectively with accountability. NICTA will endeavour to prioritise the development and implementation of a risk management strategy and report regularly as required.

Timelines

High level annual timelines for UAS Project activities will be as follows.

Table 7: Annual timelines for UAS activities.

Deliverable	Q1	Q2	Q3	Q4	Comments
Operating Plans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Operating plans for the following year
UAS Projects Report	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Projects report for the following year
UAS Annual Reports	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Reports of preceding year
Consultation for annual review and evaluation	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Review and evaluation of current year

Innovation with Technology

Whilst the programs under this plan provide high level guidance on service outcomes expected to be achieved, the technology neutrality approach of the plan offers adequate flexibility at the detailed project design level to allow for innovative use of ICTs to realise the connectivity aspirations of this plan.

Amongst other areas, the plan will require NICTA’s support specifically in enabling market access for MSMEs by identifying licensable activities and innovative spectrum policies and management.

Enabling policy and regulatory environment

Fostering an enabling policy and regulatory environment conducive to sustainable telecommunication/ICT development that encourages investment in infrastructure and ICTs and increased adoption of telecommunications/ICTs is critical. NICTA will seek to ensure regulatory conditions are conducive to enable successful delivery of the Strategic Plan.

Affordability

Use of modern, available, secure, accessible and affordable connectivity through deployment of telecommunication/ICT infrastructure and services for bridging the digital divide.

In line with the target set by the Broadband Commission for Sustainable Development for 2025, entry-level broadband services should cost less than 2 per cent of monthly gross national income (GNI) per capita.

6. Monitoring and Evaluation (M&E)

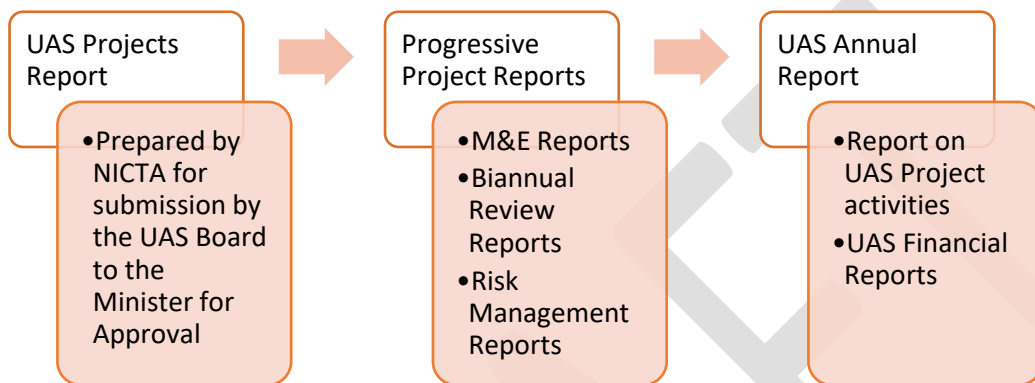
NICTA will undertake ongoing monitoring and regular evaluation activities through the duration of the plan to measure the progress against goals set out in the plan. The monitoring and evaluation activities will be guided by an M&E framework to be developed and should inform NICTA and the UAS Board efforts to improve the UAS approach in response to changes in UAS contexts and demands.

Data and analytics will play a critical role in the M&E activities of the UAS. NICTA will pivot its UAS M&E functions on available baseline data relating to existing levels of ICT network infrastructure and utilisation, extent and uptake of ICT services. ICT is cross-cutting and a key enabler for development in all other sectors/industries and there is still a need to collate sector specific baseline information on ICT services coverage and utilisation to establish the nature and levels of UAS interventions required to achieve the Governments UAS and overall digital transformation goals. M&E activities will hence include data gathering and analytical studies to meet this data needs.

7. Review and Reporting

NICTA will undertake biannual reviews of the performance of the UAS regime. The review process should provide the platform to improve current approach and allowing for evolution and innovation in the UAS.

Reviews will be initiated internally by NICTA and the UAS Board and will engage all necessary stakeholders in due course. Key UAS reports required will include progressive project reports and the Annual UAS Report.



8. Annexure

8.1. List of Greenfield Project Sites

LLG	District	Province	Region	Served Population	Unserved Population	Project Year
Goodenough Island	Kiriwina-Goodenough	Milne Bay	Southern	5,343	56,388	1
Dobu Rural	Esaála	Milne Bay	Southern	-	54,482	1
Kiriwina Rural	Kiriwina-Goodenough	Milne Bay	Southern	16,763	49,724	1
Tufi Rural	Ijivitari	Oro	Southern	-	42,072	1
Duau Rural	Esaála	Milne Bay	Southern	-	38,165	2
Afore Rural	Ijivitari	Oro	Southern	-	37,991	2
Kaintiba Rural	Kerema	Gulf	Southern	-	36,990	2
Louisiade Rural	Samarai-Murua	Milne Bay	Southern	8,656	35,848	2
West Ferguson Rural	Esaála	Milne Bay	Southern	2,961	30,379	3
Weraura Rural	Alotau	Milne Bay	Southern	-	29,856	3
Woitape Rural	Goilala	Central	Southern	7,178	22,806	3
Bwanabwana Rural	Samarai-Murua	Milne Bay	Southern	-	21,826	3
Makamaka Rural	Alotau	Milne Bay	Southern	-	21,221	4
Yaleyemba Rural	Samarai-Murua	Milne Bay	Southern	-	21,013	4
Tapini Rural	Goilala	Central	Southern	-	19,585	4
Baimuru Rural	Kikori	Gulf	Southern	5,857	18,423	4
Murua Rural	Samarai-Murua	Milne Bay	Southern	-	15,121	4
Daga Rural	Alotau	Milne Bay	Southern	2,720	12,839	5
West Kikori Rural	Kikori	Gulf	Southern	6,715	11,309	5
Guari Rural	Goilala	Central	Southern	-	11,113	5
Safia Rural	Ijivitari	Oro	Southern	-	9,156	5
Kira Rural	Sohe	Oro	Southern	-	4,709	5
Kome Rural	Menyayma	Morobe	Momase	2,674	59,969	1
Ambunti Rural	Ambunti-Drekikier	East Sepik	Momase	-	52,478	1
Simbai Rural	Middle Ramu	Madang	Momase	-	52,464	1
Sialum Rural	Tewae-Siassi	Morobe	Momase	1,373	50,273	1
Nanima Kariba	Menyayma	Morobe	Momase	-	45,752	1

Yangkok Rural	Nuku	West Sepik	Momase	184	41,976	1
Deyamos Rural	Kabwum	Morobe	Momase	-	35,909	1
Oksapmin Rural	Telefomin	West Sepik	Momase	-	34,789	2
Naho Rawa Rural	Rai Coast	Madang	Momase	787	28,393	2
Burum Kwat	Finschafen	Morobe	Momase	186	28,206	2
Wasu Rural	Tewae-Siassi	Morobe	Momase	218	27,867	2
Keram Rural	Angoram	East Sepik	Momase	4,962	27,838	2
Yus Rural	Kabwum	Morobe	Momase	-	25,983	2
Kovon	Middle Ramu	Madang	Momase	-	25,680	2
Hube Rural	Finschafen	Morobe	Momase	-	25,557	3
East Wapei Rural	Aitape-Lumi	West Sepik	Momase	-	25,531	3
Gawanga Rural	Ambunti-Drekikier	East Sepik	Momase	5,007	25,454	3
Green River Rural	Vanimo-Green River	West Sepik	Momase	-	25,008	3
West Wapei Rural	Aitape-Lumi	West Sepik	Momase	-	24,181	3
Amanab Rural	Vanimo-Green River	West Sepik	Momase	-	23,527	3
Waria Rural	Bulolo	Morobe	Momase	-	23,127	3
Burui/Kunai Rural	Wosera Gawi	East Sepik	Momase	4,265	22,937	4
Namea Rural	Telefomin	West Sepik	Momase	-	22,206	4
Gama Rural	Usino-Buni	Madang	Momase	583	20,517	4
Tunap/Hustein	Ambunti-Drekikier	East Sepik	Momase	-	16,628	4
Walsa Rural	Vanimo-Green River	West Sepik	Momase	-	16,121	4
Yuat Rural	Angoram	East Sepik	Momase	-	15,957	4
Wewak Islands Rural	Wewak	East Sepik	Momase	1,915	15,817	4
Nabak Rural	Nawae	Morobe	Momase	700	14,079	5
Maimai Wanwan	Nuku	West Sepik	Momase	-	13,234	5
Selepet Rural	Kabwum	Morobe	Momase	9,388	12,664	5
Nayudo Rural	Rai Coast	Madang	Momase	-	11,809	5
Onga/Waffa Rural	Markham	Morobe	Momase	3,841	11,157	5
Yapsie Rural	Telefomin	West Sepik	Momase	-	11,113	5
Albiges/Mablep Rural	Maprik	East Sepik	Momase	16,082	4,078	5
Melkoi Rural	Pomio	East New Britain	Islands	-	26,759	1
Central/Inland Pomio	Pomio	East New Britain	Islands	7,424	23,604	1
Kunua	North Bougainville	AROB	Islands	789	21,027	1

Gasmata Rural	Kandrian-Gloucester	West New Britain	Islands	3,394	19,619	2
Kandrian Inland Rural	Kandrian-Gloucester	West New Britain	Islands	2,077	19,503	2
Pobuma	Manus	Manus	Islands	-	16,834	2
Murat Rural	Kavieng	New Ireland	Islands	-	13,179	3
Tanir Rural	Namantanai	New Ireland	Islands	14,037	11,050	3
Rapatona	Manus	Manus	Islands	-	10,473	3
Torokina LLG	South Bougainville	AROB	Islands	-	10,343	4
Tetidu	Manus	Manus	Islands	629	6,799	4
Balopa	Manus	Manus	Islands	-	6,430	4
Siwai	South Bougainville	AROB	Islands	22,914	5,707	4
Nissan	North Bougainville	AROB	Islands	7,741	4,839	5
Attols	North Bougainville	AROB	Islands	-	4,484	5
Aua Wuvulu	Manus	Manus	Islands	-	2,245	5
Nigoherm	Manus	Manus	Islands	-	2,041	5
Kandep Rural	Kandep	Enga	Highlands	4,374	79,063	1
Kol Rural	Jimi	Jiwaka	Highlands	7,551	71,488	1
Awi/Pori Rural	Koroba-Kopiago	Hela	Highlands	-	56,213	1
Lake Kopiago Rural	Koroba-Kopiago	Hela	Highlands	-	46,397	1
Aiya Rural	Kagua-Erave	Southern Highlands	Highlands	6,016	34,537	1
Erave Rural	Kagua-Erave	Southern Highlands	Highlands	-	27,153	2
Maramuni Rural	Wabag	Enga	Highlands	-	24,858	2
Paiela/Hewa Rural	Lagaip-Porgera	Enga	Highlands	-	23,629	2
Salt Rural	Karimui-Nomane	Chimbu	Highlands	13,122	23,573	2
Wapi-Yengis Rural	Kompiani	Enga	Highlands	-	22,256	2
Kamano No. 2 Rura	Kainantu	Eastern Highlands	Highlands	-	21,474	3
Unavi Rural	Lufa	Eastern Highlands	Highlands	-	19,716	3
Nomane Rural	Karimui-Nomane	Chimbu	Highlands	4,820	16,540	3
Dunantina Rural	Henganofi	Eastern Highlands	Highlands	16,743	16,433	3
Kuare Rural	Kagua-Erave	Southern Highlands	Highlands	5,799	15,386	3
Bomai/Gumai Rural	Gumine	Chimbu	Highlands	4,989	15,137	4
Mt Bosavi Rural	Nipa-Kutubu	Southern Highlands	Highlands	-	13,265	4
Tagali Rural	Tari-Pori	Hela	Highlands	15,953	12,279	4
Ambum Rural	Kompiani	Enga	Highlands	24,928	11,667	4

Nembi Plateau Rural	Nipa-Kutubu	Southern Highlands	Highlands	24,839	11,653	4
Unggai Rural	Unggai-Benna	Eastern Highlands	Highlands	12,794	9,116	4
Lumusa Rural	Mul-Baiyer	Western Highlands	Highlands	6,694	9,052	5
Upper Asaro Rural	Daulo	Eastern Highlands	Highlands	11,066	6,364	5
Watabung Rural	Daulo	Eastern Highlands	Highlands	8,133	4,791	5
Mt Digne Rural	Gumine	Chimbu	Highlands	24,747	2,327	5
Kup Rural	Kerowagi	Chimbu	Highlands	23,516	1,494	5
Kerowagi Urban	Kerowagi	Chimbu	Highlands	2,309	- 0	5

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8.2. Annexure 2: List of Mobile Upgrade Projects

LLG	District	Province	Region	No. of Upgrade sites	Unserved Population	Project Year
Dobu Rural	Esa'ala	Milne Bay	Southern	3	25,015	1
Kokoda Rural	Sohe	Oro	Southern	3	21,727	1
Kiriwina Rural	Kiriwina-Goodenough	Milne Bay	Southern	3	19,321	1
Kaintiba Rural	Kerema	Gulf	Southern	2	18,386	1
Afore Rural	Ijivitari	Oro	Southern	1	16,976	2
Duau Rural	Esa'ala	Milne Bay	Southern	2	16,094	2
West Ferguson Rural	Esa'ala	Milne Bay	Southern	2	15,001	2
Tamata Rural	Sohe	Oro	Southern	1	14,911	2
Oro Bay Rural	Ijivitari	Oro	Southern	2	14,375	2
Louisiade Rural	Samarai-Murua	Milne Bay	Southern	3	14,009	2
Weraura Rural	Alotau	Milne Bay	Southern	3	10,855	3
Suau Rural	Alotau	Milne Bay	Southern	2	9,494	3
Makamaka Rural	Alotau	Milne Bay	Southern	1	8,438	3
Bwanabwana Rural	Samarai-Murua	Milne Bay	Southern	1	7,231	3
Yaleyemba Rural	Samarai-Murua	Milne Bay	Southern	2	6,415	3
Rigo Inland Rural	Rigo	Central	Southern	1	6,318	3
Central Kerema Rural	Kerema	Gulf	Southern	1	5,438	4
Daga Rural	Alotau	Milne Bay	Southern	2	5,191	4
East Kerema Rural	Kerema	Gulf	Southern	1	5,098	4
Kairuku Rural	Kairuku-Hiri	Central	Southern	2	5,047	4
Tapini Rural	Goilala	Central	Southern	1	5,034	4
Cloudy Bay Rural	Abau	Central	Southern	2	4,686	4
Murua Rural	Samarai-Murua	Milne Bay	Southern	2	4,090	4
Baimuru Rural	Kikori	Gulf	Southern	1	3,045	5
West Kikori Rural	Kikori	Gulf	Southern	2	2,657	5
Aroma Rural	Abau	Central	Southern	1	1,550	5
Rigo Central Rural	Rigo	Central	Southern	1	1,433	5
Woitape Rural	Goilala	Central	Southern	1	927	5
Guari Rural	Goilala	Central	Southern	1	310	5

Kome Rural	Menyamy	Morobe	Momase	3	29,138	1
Simbai Rural	Middle Ramu	Madang	Momase	1	26,231	1
Ambunti Rural	Ambunti-Drekikier	East Sepik	Momase	4	26,023	1
Karkar Rural	Sumkar	Madang	Momase	1	24,483	1
Sialum Rural	Tewae-Siassi	Morobe	Momase	3	23,730	1
Yangkok Rural	Nuku	West Sepik	Momase	3	20,988	2
Rai Coast Rural	Rai Coast	Madang	Momase	2	20,807	2
Nanima Kariba	Menyamy	Morobe	Momase	3	19,776	2
West Aitape Rural	Aitape-Lumi	West Sepik	Momase	3	18,628	2
Deyamos Rural	Kabwum	Morobe	Momase	2	17,529	2
East Aitape Rural	Aitape-Lumi	West Sepik	Momase	5	16,963	3
Yawar Rural	Bogia	Madang	Momase	2	15,611	3
Oksapmin Rural	Telefomin	West Sepik	Momase	2	14,257	3
Karawari Rural	Angoram	East Sepik	Momase	1	12,824	3
Hube Rural	Finschafen	Morobe	Momase	1	12,504	3
East Wapei Rural	Aitape-Lumi	West Sepik	Momase	1	12,413	3
Wasu Rural	Tewae-Siassi	Morobe	Momase	1	12,255	3
Naho Rawa Rural	Rai Coast	Madang	Momase	1	12,107	3
Yus Rural	Kabwum	Morobe	Momase	2	12,075	3
Wapi Rural	Menyamy	Morobe	Momase	1	11,720	3
Kovon	Middle Ramu	Madang	Momase	3	11,435	4
Burui/Kunai Rural	Wosera Gawi	East Sepik	Momase	2	10,770	4
Bewani/Wutung Onei Rural	Vanimo-Green River	West Sepik	Momase	5	10,659	4
Burum Kwat	Finschafen	Morobe	Momase	1	9,758	4
Wain-Erap Rural	Nawae	Morobe	Momase	2	9,415	4
Namea Rural	Telefomin	West Sepik	Momase	1	9,385	4
Almami Rural	Bogia	Madang	Momase	1	9,073	4
Waria Rural	Bulolo	Morobe	Momase	3	9,063	5
Amanab Rural	Vanimo-Green River	West Sepik	Momase	1	7,522	5
Boikin/Dagua Rural	Wewak	East Sepik	Momase	2	7,309	5
Green River Rural	Vanimo-Green River	West Sepik	Momase	1	6,819	5

Keram Rural	Anoram	East Sepik	Momase	1	6,558	5
Selepet Rural	Kabwum	Morobe	Momase	2	6,332	5
Walsa Rural	Vanimo-Green River	West Sepik	Momase	1	6,106	5
Gawi Rural	Wosera Gawi	East Sepik	Momase	1	5,883	5
Nayudo Rural	Rai Coast	Madang	Momase	1	5,398	5
Telefomin Rural	Telefomin	West Sepik	Momase	1	2,785	5
Albiges/Mablep Rural	Maprik	East Sepik	Momase	1	2,037	5
Anoram/Middle Sepik	Anoram	East Sepik	Momase	1	1,850	5
Buang Rural	Bulolo	Morobe	Momase	1	0	5
Buka	North Bougainville	AROB	Islands	6	35,493	1
Lovongai Rural	Kavieng	New Ireland	Islands	4	27,831	1
Namatanai Rural	Namatanai	New Ireland	Islands	3	16,175	2
Melkoi Rural	Pomio	East New Britain	Islands	2	12,954	2
Buin	South Bougainville	AROB	Islands	2	9,611	2
Pobuma	Manus	Manus	Islands	2	8,416	2
West Pomio/Mamusi Rural	Pomio	East New Britain	Islands	3	6,941	2
Konoagil Rural	Namatanai	New Ireland	Islands	1	6,084	3
Gasmata Rural	Kandrian-Gloucester	West New Britain	Islands	2	5,761	3
Lelemadih/Bupichupeu	Manus	Manus	Islands	2	4,926	3
Tanir Rural	Namatanai	New Ireland	Islands	2	4,925	3
Murat Rural	Kavieng	New Ireland	Islands	1	4,514	3
East Pomio Rural	Pomio	East New Britain	Islands	1	4,501	3
Rapatona	Manus	Manus	Islands	1	4,403	3
Selau/Suir	North Bougainville	AROB	Islands	3	4,316	3
Kandrian Coastal Rural	Kandrian-Gloucester	West New Britain	Islands	2	4,279	4
Lassul Baining Rural	Gazelle	East New Britain	Islands	1	3,885	4
Central/Inland Pomio	Pomio	East New Britain	Islands	2	3,569	4
Siwai	South Bougainville	AROB	Islands	3	2,854	4
Bali/Witu Rural	Talasea	West New Britain	Islands	2	2,516	4
Wakunai	Central Bougainville	AROB	Islands	1	2,337	4
Los Negros	Manus	Manus	Islands	1	-	5

Bana LLG	South Bougainville	AROB	Islands	2	-	5
Torokina LLG	South Bougainville	AROB	Islands	2	-	5
Balanataman Rural	Rabaul	East New Britain	Islands	1	-	1
Bitapaka Rural	Kokopo	East New Britain	Islands	1	-	2
Kandep Rural	Kandep	Enga	Highlands	3		39,530
Wage Rural	Kandep	Enga	Highlands	3		38,323
Kol Rural	Jimi	Jiwaka	Highlands	3		35,744
Jimi Rural	Jimi	Jiwaka	Highlands	4		32,507
Aw/Pori Rural	Koroba-Kopiago	Hela	Highlands	1		25,762
Lake Kopiago Rural	Koroba-Kopiago	Hela	Highlands	3		21,636
Kompam Rural	Kompam	Enga	Highlands	5		20,480
Kagua Rural	Kagua-Erave	Southern Highlands	Highlands	1		17,399
Aiya Rural	Kagua-Erave	Southern Highlands	Highlands	2		17,267
Karimui Rural	Karimui-Nomane	Chimbu	Highlands	1		16,900
Maip Muritaka Rural	Lagaip-Porgera	Enga	Highlands	2		15,302
Lamari Rural	Obura-Wonenara	Eastern Highlands	Highlands	1		14,556
Lai Valley Rural	Mendi-Munihu	Southern Highlands	Highlands	1		14,062
North Koroba Rural	Koroba-Kopiago	Hela	Highlands	2		12,480
Yelia Rural	Obura-Wonenara	Eastern Highlands	Highlands	1		12,472
Salt Rural	Karimui-Nomane	Chimbu	Highlands	1		11,786
Maramuni Rural	Wabag	Enga	Highlands	2		11,228
Baiyer Rural	Mul-Baiyer	Western Highlands	Highlands	2		10,848
Wapi-Yengis Rural	Kompam	Enga	Highlands	2		9,304
Nomane Rural	Karimui-Nomane	Chimbu	Highlands	2		8,270
Dunantina Rural	Henganofi	Eastern Highlands	Highlands	1		8,153
Siane Rural	Chuave	Chimbu	Highlands	2		6,628
Tagali Rural	Tari-Pori	Hela	Highlands	1		6,140
Nembi Plateau Rural	Nipa-Kutubu	Southern Highlands	Highlands	1		5,826
Erave Rural	Kagua-Erave	Southern Highlands	Highlands	2		5,420
Gumine Rural	Gumine	Chimbu	Highlands	1		5,416
Ambum Rural	Kompam	Enga	Highlands	2		5,240

Niglkande Rural	Kundiawa-Gembogl	Chimbu	Highlands	1	5,146	3
Lumusa Rural	Mul-Baiyer	Western Highlands	Highlands	1	4,526	3
Lake Kutubu Rural	Nipa-Kutubu	Southern Highlands	Highlands	1	4,145	3
Upper Asaro Rural	Daulo	Eastern Highlands	Highlands	1	3,034	3
Kup Rural	Kerowagi	Chimbu	Highlands	2	747	3
Karints Rural	Mendi-Munihu	Southern Highlands	Highlands	1	-	3
Nipa Rural	Nipa-Kutubu	Southern Highlands	Highlands	2	-	3

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8.4. Annexure 3: Strategic Plan Budget Break down by Projects

8.4.1 Broadband Initiative

Table 8: Broadband budget break up by projects.

Program	Projects	Year 1 - 2023	Year 2 - 2024	Year 3 - 2025	Year 4 - 2026	Year 5 - 2027	Totals
Program 1 - Mobile Broadband	Upgrade	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	12,500,000
	Greenfield	20,000,000	20,000,000	20,000,000	20,000,000	20,000,000	100,000,000
	Blackspot	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	5,000,000
Program 2 - Fixed Broadband	Connect our Schools	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	7,000,000
	Connect our Medics	600,000	600,000	600,000	600,000	600,000	3,000,000
	Connect our Farmers	600,000	600,000	600,000	600,000	600,000	3,000,000
	MSME ICT Hubs	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	7,000,000
	Community Networks	350,000	350,000	350,000	350,000	350,000	1,750,000
	Local Government Offices	600,000	600,000	600,000	600,000	600,000	3,000,000
	Total		28,450,000	28,450,000	28,450,000	28,450,000	28,450,000

8.4.2 Meaningful Connectivity Initiative

Table 9: Meaningful Connectivity Initiative budget break up by projects.

Program	Projects	Year 1 2023	Year 2 2024	Year 3 2025	Year 4 2026	Year 5 2027	Total
Program 3 - Digital Literacy	Training Component for the Fixed Broadband Connectivity Project	50,000	50,000	50,000	50,000	50,000	250,000
	Public Awareness and Capacity Building to support Digital Government Plan 2023-2027 (DGP)	75,000	75,000	75,000	75,000	75,000	375,000
	Public Digital Skills Training Project	75,000	75,000	75,000	75,000	75,000	375,000

Program 4 - ICT Applications and Content	Digital Government Applications and Content Projects	100,000	100,000	100,000	100,000	100,000	500,000
	Public Applications and Content Projects	100,000	100,000	100,000	100,000	100,000	500,000
Program 5 - Affordable Smart Devices	Smart 4G Mobile Devices Projects	200,000	200,000	200,000	200,000	200,000	1,000,000
	Fixed Broadband Devices	200,000	200,000	200,000	200,000	200,000	1,000,000
	Set-top Boxes	400,000	400,000	400,000	400,000	400,000	2,000,000
		1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	6,000,000

8.4.3 Broadcasting Initiative

Table 10: Broadcasting Initiative budget break up by projects.

Projects	Year 1 - 2023	Year 2 - 2024	Year 3 - 2025	Year 4 - 2026	Year 5 - 2027	Totals
TV - Analog to Digital	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	7,000,000
Radio	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	6,000,000
	2,600,000	2,600,000	2,600,000	2,600,000	2,600,000	13,000,000