

TO THE HONOURABLE KONI IGUAN, MINISTER FOR COMMUNICATION,
INFORMATION TECHNOLOGY AND ENERGY

REPORT FROM THE UNIVERSAL ACCESS SERVICES BOARD ON RECOMMENDED 2019 UNIVERSAL ACCESS SERVICE PROJECTS

2019 UAS Projects Report

National Information and Communications Technology Authority



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1 INTRODUCTION

Under Section 108(1) of the National Information and Communications Technology Act 2009 (NICT Act), NICTA is engaged by the UAS board to undertake certain tasks relating to UAS Projects, including:

- “(a) identify, develop and estimate the indicative cost of UAS Projects; and
- “(d) estimate the proposed aggregate budget for all UAS Projects to be undertaken under this Part for the relevant period identified by the UAS Board; and
- “(e) rank the UAS Projects identified and developed under Subsections (1)(a) or (b) in order of priority with regard to –
 - (i) their affordability within the proposed budget; and
 - (ii) the remaining factors listed in Subsection (4); and
- “(f) prepare for consideration by the UAS Board, a report which summarises the UAS Projects under consideration, their respective indicative costing, their proposed ranking (and the reasons for their ranking), and the proposed aggregate budget, as identified above.”

NICTA has undertaken these tasks, including providing the UAS Board with the 2018 UAS Projects Report, pursuant to Section 108(1)(f)

Sections 108 (2) - (3) of the NICT Act provide for the UAS Board to undertake certain tasks, namely:

- “(2) The UAS Board shall consider the report prepared by NICTA under Subsection (1) and prepare a UAS Project report which identified the UAS Board's recommendations for UAS Projects, their ranking and the reason for such ranking
- (3) The UAS Board shall submit the UAS Project report (as prepared under Subsection (2)), to the Minister, at least once in every calendar year, for the Minister's consideration”.

The UAS Board has considered the Report by NICTA, and now complies with Sections 108 (2) – (3) of the NICT Act by providing the Honourable Minister with the “REPORT FROM THE UNIVERSAL ACCESS SERVICES BOARD ON RECOMMENDED 2019 UNIVERSAL SERVICE PROJECTS”.

This Report recommends for approval by the Honourable Minister, four (4) Universal Access Services Projects for 2019. These recommended Projects have been

evaluated and ranked on the criteria in NICT Act. The 2019 recommended UAS Projects, and their ranking are as follows:

PROJECT RANKING

Project #1: Mobile Broadband Network Upgrade and Expansion

Project #2: Community and Institutional Broadband Networks

Project #3: ICT Platform for Future Growth Project

Project #4: Extension of broadcasting network coverage

The reasons for the ranking, and the way in which each Project fulfils the criteria, are explained below, following the descriptions of each Project.

The UAS Board also is aware from NICTA, and has considered, indicative costs and implementation and procurement timelines and processes for these UAS Projects.

The UAS Board respectfully requests that the Honourable Minister promptly approve these Projects and direct NICTA, with support from the UAS Board, to make all appropriate steps to fund and implement them.

The UAS Board also notes that pursuant to Section 108 (5) of the NICT Act, if the Minister does not identify approved 2019 UAS Projects within 60 days, the recommended Projects are deemed to be rejected (which would, in practical terms, deprive members of the public of the important benefits of these 2019 Projects)

2 PROJECT 1: MOBILE BROADBAND NETWORK UPGRADE AND EXPANSION

This Project would extend the coverage of advanced broadband wireless mobile communications services (at least 3G/HSPA+, 4G/LTE, or other advanced systems) as far as possible into all areas of the country. The goal would be to deliver reliable, high quality access to Internet and “smart” mobile applications and capabilities to as many PNG citizens as possible, where access to such services is not adequately available, and where existing licensed operators are unwilling or unable to expand their networks, due to commercial or other constraints. The ultimate objective of this program is to achieve virtually 100% mobile broadband service coverage throughout PNG.

These goals can be accomplished under the Fund through support for projects that invest in advanced mobile network infrastructure and service expansion by licensed mobile operators. UAS Projects under this program would provide financial support for build-out of local broadband mobile network coverage into unserved and underserved areas, to fill identified gaps and ensure signal access for all target communities.

There are two types of work included in this Project: (1) new BTS sites in areas currently with no mobile service, and (2) upgrades to existing 2G BTS sites. Implementing contractors/operators will be responsible for installing and operating wireless voice and broadband data/Internet telecommunications networks and services within specified locations where such service is not currently available. Priority locations for each separate Project will be selected by NICTA, based on market analysis and stakeholder consultations.

For 2019, it may be practical to continue being optimal in having a relatively small number of initial projects. Following recent pilot projects that have been successfully implemented, NICTA has identified and designed 2 - 3 4G upgrade as well as 2 - 3 new 4G network projects, in selected priority locations. These projects would be developed and bids solicited in two stages during the course of the year, to allow all parties to focus resources on a limited number of bidding processes at one time.

2.1 Indicative Budget and targets for 2019

To assist the UAS Board in considering this Project, and funding needs, NICTA provides below an indicative 2019 budget and target outcomes. This project can begin in 2019, but project implementation, and expenditure of funds, may continue into 2020.

- Budget allocation = 20 million PGK

¹ Amount calculated from previous similar project, subsidiary cost to fund one 60m tower
² Amount taken from previous similar project, subsidiary cost for one 2G to 3G site upgrade
³ Figure taken from 2019 Access Gap Analysis Model
⁴ Figure taken from 2019 Access Gap Analysis Model

2.2 Indicative Implementation approach

- Target outcome:
 - **New 4G Service:** Approx. ³158,188 populations to be covered by newly 4G service, reducing the national's uncovered population access gap from 1,367,193 to 1,209,005;
 - **4G Upgrade:** Approx. ⁴448,413 populations to be covered by newly 4G upgraded service decreasing the national's 3G uncovered population access gap from 2,195,453 to 1,747,040;
 - This is deemed satisfactory improvement for both projects in reducing the uncovered population gaps.
- Estimate of Approx. ²K50,000/site = 90 2G sites to be upgraded.
 - **4G Upgrade** = 4.5 million PGK constructed;
 - Estimate of Approx. ¹K600,000/site = 25 (60m) towers to be constructed;
 - **4G New Greenfield** = 15 million PGK

- Main requirements:
 - Project RFPs will identify location boundaries and minimum service requirements. These will generally include construction of backhaul and tower infrastructure and network connectivity, installation or upgrade of Base Stations, establishment of local electrical power and all other necessary facilities, and operation of broadband mobile services on a commercial basis within the identified areas. There may also be mandates for minimum customer take-up of the services. UAS subsidized operators will be required to provide open access and infrastructure sharing for all facilities, including towers, base stations and

backhaul network, as well as mobile roaming to other licensed operators for users within the project locations.

- **Bidding parameters:**
Bidders must be licensed mobile telecom operators, with qualifications and capabilities to provide the services, including existing presence in locations to be upgraded. Bids must include detail on proposed network deployment to ensure minimum coverage. Contracts will be awarded to the operator proposing the least total subsidy bid per project, or proposing to cover the largest unserved population for the fixed subsidy amount.

2.3 Specific Projects

- **Number of projects:**
4G Upgrade = 1- 2 projects
New 4G service 1- 2 projects

- **Size, scope:**
Based on the UAS NICTA Secretariat's "Gap Analysis," (this Project is proposed to include:

(i) **4G Upgrade projects:** Approx. 4-5 LLGs within 2-4 Districts for each project selected from one or more of the following geographic locations, in descending order of priority:

1. Eastern Highlands
2. Madang
3. Bougainville
4. Enga
5. Jiwaka
6. New Ireland
7. Morobe
8. Chimbu

The priority sequence has been based on the UAS Secretariat's Access Gap analysis, with locations (Provinces) of largest uncovered population (no 3G/4G) access gap being given the highest priority.

(ii) **New 4G service projects:** Approx. 2 - 3 LLGs within 1- 2 Districts for each project selected from one or more of the following geographic locations, in descending order of priority:

1. Hela
2. Gulf
3. Enga
4. Jiwaka
5. Madang

The priority sequence has been based on the UAS Secretariat's Access Gap analysis, with locations of largest uncovered population (no 2G/3G/4G services) gap being given the highest priority. The uncovered population of +20,000 has been proposed as the preferable benchmark for location identification using the Access Gap analysis for the highest uncovered population, which is sufficient to cover ample number of sites (4G Greenfield and 4G upgrade) within the allocated budget.

Locations:

Specific locations (districts, LLGs) within the priority Provinces to be determined through consultations with the public, operators, and local officials.

2.4 Indicative⁵ Timetable of key milestones

This project may be rolled out in one phase, as follows, and the likely funding requirements have been taken into account the requirements for 2019:

Initial project design	Done
Public consultations	Done
Project Approvals	April '19
RFP release	May '19
Bid submission, evaluation of bids	June '19
Contract award, project launch	July '19
Project implementation, M&E	August '19-2020

⁵ After UAS Board Meeting No: 020/2019, initial proposed timetable has been rescheduled thought-out the entire Projects Report for all Programs

2.5 Assessment of Project against Section 108(e) criteria

Criteria	Assessment
(a) whether the proposed UAS Project would promote the objectives of the Universal Access and Service Fund	This Project meets the UAS Fund objective set out in Section 90(1) of the Act. It directly relates to the improvement of ICT services within PNG, and to rural communities in particular
(b) the net benefits of the UAS Project to Papua New Guinea, taking into account any costs and detriments to any person	There are clear net benefits to the communities in the locations in which 3G service will be provided through the provision of services that will underpin economic development and greater social cohesion.
(c) whether the UAS Project is sustainable with a one-time capital subsidy	In each of the chosen locations the Project will be sustainable with a one-time capital subsidy and continued operation of the services and related costs will be provided by the successful bidder.
(d) whether the UAS Project would not otherwise occur but for a subsidy payment under this Part	This Project, in the locations identified, would not otherwise occur except for the subsidy provided from the UAS Fund.
(e) the likely efficiency and effectiveness of the proposed UAS Project and whether it is financially and technically feasible	The Project will be undertaken efficiently and effectively, and this will be guaranteed through an arms-length public tender process. The project is financially and technically feasible as shown by similar projects in other locations and by the business programs of PNG licensed mobile operators.
(f) any other information the UAS Board considers relevant	Other relevant information is contained in this report and in the associated Access Gap Analysis.

(g) (shall ensure that) any UAS Project does not include services under a mandatory coverage obligation	The Project does not include services subject to a mandatory coverage obligation.
(h) (shall ensure that) any UAS Project is not otherwise provided by a pre-existing UAS Project	The Project and its constituent elements are not covered by a pre-existing UAS Project.

As shown by the Table above, this Project fulfills the section 108 criteria.

This Project is ranked first because it ranks highest on criteria (a), (b) and (e). This Project provides the largest net benefits due to providing expanded network coverage and service delivery capability. It also is based on well-known technology that is efficient in delivering such services. Currently, extending such network coverage and services ranks higher on these criteria than Projects 2 and 4, which focus on service usage and assisting communities to derive more benefit from services.

3 PROJECT 2: COMMUNITY AND INSTITUTIONAL BROADBAND NETWORKS

This Project projects would help deliver high-speed, full-service fixed broadband Internet connections to selected communities, with services and capacity widely available to public institutions as well as local businesses and households, on an affordable basis throughout each designated local service area. To achieve these outcomes, the Community Broadband Program would support comprehensive implementation projects in a limited number of designated locations, consisting of three integrated components:

- Broadband Network Access and Service: Extending broadband network links into areas unserved by sufficient high capacity signals;
- Institutional Connectivity: Providing broadband connections directly to identified local public institutions, including schools, health facilities, local government offices, and community centers;
- Community ICT Centres (CICs): Establishment of public access CICs within each designated community.

To achieve the multiple, inter-related goals of this Project, this Project would be designed to require implementing partners and contractors/operators to provide the full range of specified outputs simultaneously within each defined service area.

For 2019, NICTA has identified 3 to 4 pilot locations across 2 distinct Projects, and can invite project design and operation proposals from operators for an identified budget.

3.1 Indicative Budget and targets for 2019

To assist the UAS Board in considering this Project, and funding needs, NICTA provides below an indicative 2019 budget and target outcomes. This project can begin in 2019, but project implementation, and expenditure of funds, may continue into 2020.

- Budget allocation = 3 million PGK
 - Estimate of Approx. ⁶K400,000/institution = 8 institutions/facilities to be connected

- Target outcomes:
 - Launch of broadband community networks and services in 1-2 pilot locations, connecting major public institutions, and providing public community access points.

3.2 Implementation approach

- Procurement strategy:

For each location, NICTA would issue a request for proposals from qualified licensed telecom operators, identifying the locations and scope of facilities and services required, and the available subsidy amounts. Local SMEs involved in Internet Service provision (ISPs) are highly encourage to participate. Bidders will propose the range of infrastructure, network configuration, technologies, and other features to be offered for the available budget. NICTA will select the most responsive proposals that will deliver the broadest and most cost-effective services.

- Main requirements:

At a minimum, contractors must establish broadband (fiber) access network links into the designated communities, and connections to identified public institutions (schools, government offices). They must also establish some form of public broadband ICT access facility (community ICT center, public WiFi, or equivalent). The contractor must ensure continuous operation of

⁶ Amount taken from CSP project in subsidizing to connect one teachers' college

public Internet service at these locations. Options for other services, including fixed and wireless broadband, may also be included.

• Bidding parameters:

Bidders will define in their proposals the specific scope and configuration of infrastructure and services to be provided in the designated locations, and all other required and optional features. The amount of subsidy available will be disclosed to bidders, who must design their projects to meet this budget. NICITA and the UAS Board will select the qualified bids that best meet the requirements, and that provide greatest value for the communities.

3.3 Projects to be funded

• Number of projects:

A total of 8 institutional/facilities will be funded under this program.

Locations for this project will be determined after UAS Secretariat's public request for proposals (RFPs) have been received. Additionally, stakeholders' proposal submissions submitted during the 2019 UAS Public Consultations will also be considered. Successful proposed projects will be subsidized by one-off capital assistance within the project duration of two (2) years and implemented in one or more identified geographic locations based on the UAS Secretariat's Access Gap analysis, in descending order of priority.

Identified locations will have been confirmed to have 3G/4G for the purpose of the project as for the community centres to be able to operate as they are likely to require cellular mobile broadband and internet access in the first instance. The priority sequence will be based on the UAS Secretariat's Access Gap analysis for new 4G services or existing 3G, with locations of highest gap being given the highest priority. Size, scope: Pilot deployments of community broadband connections in 1 - 2 locations (LLGs) per project. Connections and broadband service to major public institutions, plus public ICT access facilities in each location.

• Locations:

Specific locations (districts, LLGs) to be determined through consultations with the public, operators, and local officials.

3.4 Indicative Timetable of key milestones

2019:

Initial project design	Done
Public consultations	Done
Project Approvals	April '19
RFP release	May '19
Bid submission, evaluation of bids	June '19
Contract award, project launch	July '19
Project implementation, M&E	August '19-2020

3.5 Assessment of ranking against Section 108(e) criteria

Criteria	Assessment
(a) whether the proposed UAS Project would promote the objectives of the Universal Access and Service Fund	This Project meets the UAS Fund objective set out in Section 90(1) of the Act. It directly relates to the improvement of ICT services within PNG, and will be implemented to prioritise potential broadband users in rural communities without other access to these services.
(b) the net benefits of the UAS Project to Papua New Guinea, taking into account any costs and detriments to any person	There are clear net benefits resulting from the provision of services in this Project. They will underpin economic development and greater social cohesion. In particular, the community broadband networks from the Project will provide very important local economic infrastructure supporting online transactions that enable the economic reach of the communities served to be extended.

(c) whether the UAS Project is sustainable with a one-time capital subsidy	In each of the chosen locations the Project subsidy and continued operation of the services and related costs will be provided by the successful bidder.
(d) whether the UAS Project would not otherwise occur but for a subsidy payment under this Part	This Project, in the locations identified, would not otherwise occur except for the subsidy provided from the UAS Fund.
(e) the likely efficiency and effectiveness of the proposed UAS Project and whether it is financially and technically feasible	The Project will be undertaken efficiently and effectively, and this will be guaranteed through an arms-length public tender process. The project is financially and technically feasible as shown by similar projects in other locations and by the business programs of PNG licensed mobile operators.
(f) any other information the UAS Board considers relevant	Other relevant information is contained in this report.
(g) (shall ensure that) any UAS Project does not include services under a mandatory coverage obligation	The Project does not include services subject to a mandatory coverage obligation.
(h) (shall ensure that) any UAS Project is not otherwise provided by a pre-existing UAS Project	The Project and its constituent elements are not covered by a pre-existing UAS Project.

This Project is ranked second because it ranks second on criteria (a), (b) and (e). This is a Project to provide network capability and services, and in that respect similar to Project 1, and superior on these criteria to Projects 3 and 4. This Project ranks behind Project 1 because the delivery of services is to a more limited target population, and achievement of net benefits, UAS objectives and efficiency, is not as high as for Project 1.

4 PROJECT 3: ICT PLATFORM FOR FUTURE GROWTH PROJECT

4.1 Summary of Possible Projects and Program

The purpose of this Project is to help develop a platform for future, long-term development of ICT utilization and opportunities across Papua New Guinea society. It would support the development of creative, innovative, and high value ICT activities

within PNG communities, which will tap into the resources and knowledge of the local populations.

There are two main components to this Project: (1) ICT Applications and Content, and (2) Digital Literacy projects. Specific individual projects will be designed by NICTA and the UAS Board, in consultation with appropriate public officials and other stakeholders.

For the first year's preliminary implementation of this Program, NICTA would invite interested partner organizations to submit proposals for innovative projects under each category, to be developed and piloted with the available Fund budget (together with other resources). Local SMEs involved in the ICT are highly encouraged to participate. NICTA and the UAS Board will enter into agreements with selected organizations to define and implement the projects deemed most appropriate, cost-effective, and valuable. Without limiting the possible proposals that might be provided to NICTA, the project could involve the development of self-learning software to improve the digital literacy of those using the Broadband Centres established under Project 2, or the digital literacy of post-school adult population generally.

4.2 Indicative Budget and targets for 2019

To assist the UAS Board in considering this Project, and funding needs, NICTA provides below an indicative 2019 budget and target outcomes. This project can begin in 2019, but project implementation, and expenditure of funds, may continue into 2020.

- Budget allocation: 2 million PGK
 - Digital Literacy = 1.5 million PGK
 - Estimate of Approx. ⁷ K200,000/program = 8 programs to be delivered;
 - ICT Application and Content = 0.5 million PGK
 - Estimate of Approx. ⁸ K50,000/project = 10 projects to be delivered
- Target outcomes:

Initial pilot projects, reaching target populations with useful content and valuable digital literacy training, while providing helpful lessons for scaling up similar projects, and developing further partnerships.

4.3 Implementation approach

- Procurement strategy:

⁷ Amount taken from 2018 Digital Literacy program

⁸ Amount taken from 2018 ICT Application & Content program

The first year implementation would involve two modest-scale pilot projects, aimed at identifying options for further expansion. NICTA will consult with potential partners and solicit proposals for introductory ICT content and digital literacy projects, which can be scaled up where appropriate. Priority will be given to proposals that are likely to have a large number of potential beneficiaries at the earliest time.

- Main requirements:

ICT content project: Design of a preliminary plan and implementation strategy to encourage development of locally relevant ICT content. Digital literacy project: Design of a preliminary plan and implementation strategy to support wide improvement in digital literacy among disadvantaged population groups.

- Bidding parameters:

NICTA will solicit ideas and proposals from potential partner organizations that are interested and qualified to offer the needed resources. These may include universities, local governments, small entrepreneurs, social service organizations, training institutes, and community groups. Such partners will be invited to propose projects within the general parameters and budgets defined by NICTA and the UAS Board. Proposals will be selected for innovation, cost-effectiveness, and capability and resources of the partners.

4.4 Projects to be funded

- Number of projects:

ICT content = 1 - 2 pilot projects
Digital literacy = 1 - 2 pilot projects

A total of 18 projects in total will be funded in this program.

Projects will be determined after UAS Secretariat's public request for proposals (RFPs) have been received. Additionally, stakeholders' proposal submissions submitted during the 2019 UAS Public Consultations will also be considered. Successful proposed projects will be subsidized by one-off capital assistance and implemented in one or more identified geographic locations based on the UAS Secretariat's Access Gap analysis, in descending order of priority.

- Size, scope:

Each project will be supported by approx. 200,000 PGK for Digital Literacy and 50,000 PGK for ICT Content Development, from the total allocated Fund for this project.

• Locations

Specific locations and target beneficiaries of the pilot projects will be determined by NICTA and the UAS Board together with the selected partners, and through consultations with other key stakeholders. However, it is intended to align the pilot projects with the locations for new and upgrade 4G service in Project 1 unless compelling reasons require otherwise.

4.5 Indicative Timetable of key milestones:

2019:

Initial project design	Done
Public consultations	Done
Project Approvals	April '19
RFP release	May '19
Bid submission, evaluation of bids	June '19
Contract award, project launch	July '19
Project implementation, M&E	August '19- 2020

4.6 Assessment of ranking against Section 108 (e) criteria

Criteria	Assessment
(a) whether the proposed UAS Project would promote the objectives of the Universal Access and Service Fund	This Project meets the UAS Fund objective set out in Section 90(1) of the Act. It directly relates to the improvement of ICT services within PNG, and will encourage greater ICT usage and therefore sustain further investment in ICT infrastructure.

(b) the net benefits of the UAS Project to Papua New Guinea, taking into account any costs and detriments to any person	The ICT platforms and practical innovations envisaged will have net social and economic benefits for PNG and the specific proposals that are accepted for funding will be selected on that basis.
(c) whether the UAS Project is sustainable with a one-time capital subsidy	Yes, there will be a one-time contribution from the UAS Fund and the specific proposals that are accepted for funding will be selected on the basis that they will be commercially sustainable after that contribution.
(d) whether the UAS Project would not otherwise occur but for a subsidy payment under this Part	Proposals accepted for funding under this Project will be selected on the basis of their merit and that they would not be progressed but for the subsidy.
(e) the likely efficiency and effectiveness of the proposed UAS Project and whether it is financially and technically feasible	The Project will be undertaken efficiently and effectively, and this will be guaranteed through an arms-length public tender process. Financial and technical feasibility will have to be proven by the proponents of proposals that are accepted for a subsidy.
(f) any other information the UAS Board considers relevant	Other relevant information is contained in this report.
(g) (shall ensure that) any UAS Project does not include services under a mandatory coverage obligation	The Project does not include services subject to a mandatory coverage obligation.
(h) (shall ensure that) any UAS Project is not otherwise provided by a pre-existing UAS Project	The Project and its constituent elements are not covered by a pre-existing UAS Project.

This Project is ranked third because it ranks third on criteria (a), (b) and (e). It is a project directed to increase the ability of the communities to use and derive benefit from the services. This is, in terms of the criteria, not as highly ranked as providing network infrastructure to deliver the services at all. As a usage – oriented Project, this ranks above Project #4 because the platform and literacy project can be applied more broadly and are likely to have greater impact in terms of meeting the UAS objectives.

5 PROJECT 4: EXTENSION OF BROADCASTING NETWORK COVERAGE

This Project addresses the objective of extending coverage of radio and television broadcasting to all citizens and communities in PNG. The UAS Board and NICTA aim to support growth of the broadcasting sector through targeted use of UAS Fund resources to close gaps and assist low income consumers where the broadcasting market may not reach. This activity will focus on support for infrastructure expansion, primarily through enhancement or installation of broadcast antennae on existing or new towers, as well as potential assistance for low-income households with the costs of the digital broadcasting transition, via subsidizing small – medium sized digital TV sets.

For 2019, this Project is intended to serve as an initial planning and pilot exercise, while also delivering expanded broadcast coverage to a selected set of districts. NICTA will solicit bids from qualified contractors for a single, integrated project to be rolled out within 2 - 3 target provinces initially. The project planning, negotiations, and implementation will help define the parameters of future projects under this program.

5.1 Indicative Budget and targets for 2019

To assist the UAS Board in considering this Project, and funding needs, NICTA provides below an indicative 2019 budget and target outcomes. This project can begin in 2019, but project implementation, and expenditure of funds, may continue into 2020.

- Budget allocation = 1.5 million PGK
 - DTV Transmitters = 1.5 million PGK
 - Estimate of Approx. ⁹K100,000/Digital Ready 75W Txer = 10 sites to be upgraded/installed;
 - DTV Sets = 0.5 million PGK
 - Estimate of Approx. ¹⁰K1500/Digital 14 inch TV set = 333 sets to be purchased

- Target outcomes:
 - Expanded coverage of digital TV broadcast signals throughout selected province/districts and communities having access to digital TV sets.

5.2 Implementation approach

- Procurement strategy:

⁹ Amount is for the cost of one 75W digital ready transmitter supplied by EMTV
¹⁰ Amount for one small 14 inch Star Vision TV digital TV set from Brian Bell

NICTA will solicit bids from qualified contractors to construct and install the necessary infrastructure, facilities, and equipment to expand broadcast signals within the designated areas. Contractors do not have to be licensed operators, but must have the capability to provide all necessary planning, equipment, and resources. NICTA will coordinate with broadcasters to identify the required locations, and contractors will propose how best to build and install the needed facilities. In addition, the UAS Fund will make available limited subsidies for digital set-top boxes on a preliminary trial basis, which will be offered to qualified low-income users through the selected contractor.

- **Main requirements:**
Survey existing infrastructure and transmission network, determine scope of needs. Install broadcast antennae and related equipment and facilities to link to existing radio and TV broadcast networks. Wherever possible, use available towers and similar structures that are capable of supporting broadcast antennae. Prepare plan for discounted set-top boxes for qualified customers.

- **Bidding parameters:**
Bidders will be asked to propose the technical approach and requirements for expanding broadcast coverage within the designated areas. Contractors need not be licensed operators/broadcasters, but must demonstrate capability to construct the necessary facilities and link them to existing broadcast networks. The amount of available subsidy will be disclosed by NICTA, and bidders will identify the maximum scope of coverage they can achieve for that budget. The qualified contractor proposing the widest population coverage for the available budget will be awarded each project. Bidders must also propose a plan for distributing subsidized set-top-boxes to low-income households.

5.3 Projects to be funded

- **Number of projects:**
2 pilot project

- **Size, scope:**

2 - 3 districts within a selected province, where digital TV broadcast signals are not sufficiently available, to reach all unserved LLGs within the defined area.

The pilot project will be in one of the following geographic locations, in descending order of priority:

1. Gulf Province
2. Central Province
3. Western Highlands Province
4. Oro Province
5. New Ireland Province
6. Manus Province
7. East New Britain

The priority sequence has been based on the UAS Secretariat's Access Gap analysis, with locations of largest unserved population gap being given the highest priority. The priority is based on the absence of broadcasting (TV a) coverage as shown by the access gap analysis

- Locations: Specific locations (districts, LLGs) to be determined through consultations with the public, broadcasters, and local officials.

5.4 Indicative Timetable of key milestones:

2019:

Initial project design	Done
Public consultations	Done
Project Approvals	April '19
RFP release	May '19
Bid submission, evaluation of bids	June '19
Contract award, project launch	July '19
Program implementation, M&E	August '19-2020

5.5 Assessment of ranking against Section 108(e) criteria

Criteria	Assessment
(a) whether the proposed UAS Project would promote the objectives of the Universal Access and Service Fund	This Project meets the UAS Fund objective set out in Section 90(1) of the Act. It directly relates to the improvement of ICT services within PNG, and will encourage greater ICT usage and therefore encourage further investment in ICT infrastructure. Improved broadcasting service coverage is critical to informing economic and social transactions.
(b) the net benefits of the UAS Project to Papua New Guinea, taking into account any costs and detriments to any person	Improved information distribution through increased broadcasting service coverage will provide net social and economic benefits through a better-informed community in the areas the Project covers.
(c) whether the UAS Project is sustainable with a one-time capital subsidy	Yes, there will be a one-time contribution from the UAS Fund and the specific proposals that are accepted for funding will be selected on the basis that they will be commercially or otherwise sustainable after that contribution.
(d) whether the UAS Project would not otherwise occur but for a subsidy payment under this Part	Proposals accepted for funding under this Project will be selected on the basis that they would not be progressed but for the subsidy.
(e) the likely efficiency and effectiveness of the proposed UAS Project and whether it is financially and technically feasible	The Project will be undertaken efficiently through an arms-length public tender process. Financial and technical feasibility will have to be proven by the proponents of proposals that are accepted for a subsidy.
(f) any other information the UAS Board considers relevant	Other relevant information is contained in this report.

(g) (shall ensure that) any UAS Project does not include services under a mandatory coverage obligation	The Project does not include services subject to a mandatory coverage obligation.
(h) (shall ensure that) any UAS Project is not otherwise provided by a pre-existing UAS Project	The Project and its constituent elements are not covered by a pre-existing UAS Project.

This Project is ranked fourth because it ranks fourth on criteria (a), (b) and (e). The reasons for this are summarized already in the ranking discussion for Project # 1 – 3.