Interim Review

Roads for Development Program

Australian High Commission, Development Cooperation, Port Vila

Final Report

12 March 2015

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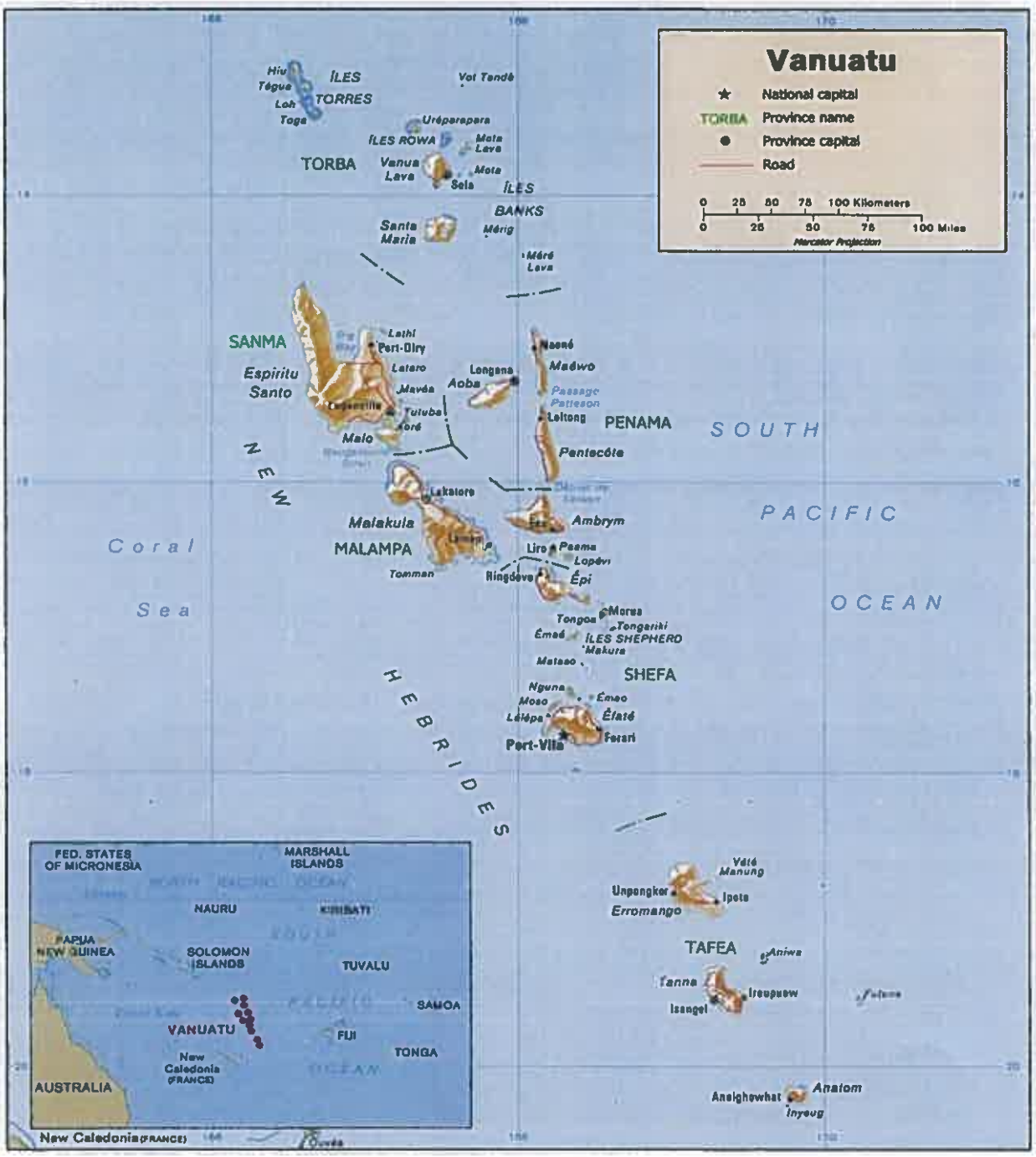
Contents

ABBREVIATIONS

$A	Australian dollar
AHC	Australian High Commission
APTC	Australian-Pacific Technical College
AVID	Australian Volunteers for International Development
DC	Development Cooperation (Section of the AHC, Port Vila)
DEPC	Department of Environmental Protection and Conservation
DFA	Direct Funding Arrangement
DFAT	Department of Foreign Affairs and Trade (Australia)
DM	Divisional manager
DoFT	Department of Finance and Treasury
ECB	Evaluation Capacity Building (program)
EHC	Equipment hire contract
EMP	Environmental management plan
GfG	Governance for Growth
GoA	Government of Australia
GoV	Government of Vanuatu
HR	Human resources
HRD	Human resources development
ICT	information and communications technology
IR	Interim review
ISP	Implementation Service Provider
MTR	Mid-term review
NC	National contractor
PEA	Preliminary Environmental Assessment
PEM	Public expenditure management
PFM	Public financial management
PMR	Performance management review
PWD	Public Works Department
R4D	Roads for Development (Program)
RAI	Rural access index
RME	Road maintenance engineer
RTC	Rural Training Centre
SI	Site inspector
TA	Technical assistance
ToC	Theory-of-change
VIPAM	Vanuatu Institute of Public Administration & Management
VPMU	Vanuatu Project Steering Committee
Vt.	Vanuatu vatu
VTSSP	Vanuatu Transport Sector Support program
WHS	Workplace health and safety

MAP OF VANUATU



EXECUTIVE SUMMARY

This interim review of the Vanuatu Roads for Development Program (R4D) was prepared by the development cooperation team in the Australian High Commission, Port Vila. The team gratefully acknowledges comments and suggestions from Department of Foreign Affairs and Trade (DFAT) peers.

The original purpose of the interim review was to help DFAT Port Vila and Canberra, and the Vanuatu Ministry of Infrastructure and Public Utilities (MIPU) consider the draft R4D 2015 work plan. As it progressed, the interim review identified several issues that were fundamentally affecting the likely success of R4D. The purpose of the interim review then broadened: 'To provide analysis and recommendations for primary users to consider mid-term adjustments to the design and delivery of R4D'. The interim review is not a formal evaluation, *per se*, but it does follow DFAT's Monitoring and Evaluation Standard 6.

The interim review is structured around 12 review questions on: a) physical works; b) capacity development; c) gender equality and social and environmental safeguards; d) program management; and e) progress toward end-of-program outcomes. The most important and pressing findings and recommendations are summarised below.

Policy to guide road investments: A National rural road accessibility policy would improve network management. It would provide a sound basis for R4D – and Public Works Department (PWD) – road works programming. The policy would endorse agreed functions and 'levels-of-service' to be delivered across Vanuatu's National rural road network – road-by-road. R4D's road works program currently follows broad screening and evaluation criteria set out in the Project Design Document. These criteria may not be optimal for network management. Nor do they guide what road sections will be rehabilitated or improved to what standard; and what road conditions R4D's maintenance works should aim to achieve. The interim review explains why these are crucial questions.
RECOMMENDATION: R4D should immediately engage the Ministry of Infrastructure and Public Utilities on the benefits of a rural road accessibility policy and provide technical assistance to help develop a National policy. The interim review describes a process to follow and explains how a Policy could greatly improve the efficiency of PWD operations.

Demand-driven physical works support: It is not the intention, but R4D road works are being delivered as a parallel program. There is little genuine partnering between the R4D physical works team and their PWD divisional counterpart, despite best efforts. R4D's physical works delivery mechanism lacks basic incentives and accountabilities essential to engender genuine partnering.
RECOMMENDATION: R4D physical works support should be delivered using a demand-driven approach, with the following essential features:

1. **Open to all PWD divisions**: R4D would no longer locate and work in only three prescribed provinces. All PWD divisions should be able to compete for R4D support.
2. **No separate R4D works program**: R4D resources would partly finance divisional work plans that meet certain criteria and tests.
3. **Service hub**: R4D's three road maintenance engineers (RMEs) would be withdrawn from their respective provinces. They would be despatched to the field from an R4D technical services hub in Port Vila (and possibly also in Luganville).
4. **Changed role of RMEs**: RMEs would no longer be responsible for delivering R4D's works program in their respective provinces. They would: a) guide and technically vet proposals submitted by PWD divisions; and b) inspect and co-certify works. Depending on skill sets, they would also mentor PWD counterparts and local contractors.
5. **No R4D funding for site inspectors (SIs)**: After 4 years of program support, SI performance remains highly variable. R4D would no longer finance SIs.

Gender equality: Overall, R4D-funded island-based contractors (IBCs) are not providing enough work opportunities for women.
RECOMMENDATIONS: R4D should continue to deliver gender equality training and in-field tools to help IBCs. PWD divisional engineers and foremen should press SIs to help IBCs and monitor compliance. RMEs should cover gender equality compliance in their monthly reports. R4D should draft an amendment to the IBC General and/or Specific Conditions of Contract to include a reward for increasing work participation opportunities for women.

Workplace health and safety: IBCs are not adequately protecting their workers from health and safety risks. The interim review recommends actions similar to those for increasing gender equality.

Effectiveness of the Project Steering Committee (PSC): The current PSC arrangement is hampering the PSC in providing strategic oversight and governance for R4D. It is also not conducive to effective high level Government of Vanuatu (GoV) and Government of Australia (GoA) collaboration and partnering.
RECOMMENDATIONS: GoV and GoA should immediately re-establish an R4D-dedicated PSC as agreed in the R4D Direct Funding Arrangement (DFA). GoV and GoA should negotiate to streamline the membership of the re-established PSC. The R4D implementation support provider (ISP) should provide structured secretariat services to the PSC, including the preparation of PSC agenda, papers, minutes and other support. All other administrative arrangements agreed in the DFA should apply.

Progress towards end-of-Program outcomes: Progress towards end-of-Program outcomes is variable. But overall, in the absence of a National (rural) roads accessibility policy and without changing to a demand-driven physical works support approach, R4D will fall well short of achieving the end-of-Program outcomes agreed during the Inception Phase.

Next steps: The interim review recommends substantive changes to improve Program performance. DFAT Port Vila is of the view that the interim review has been thorough and robust and that an independent evaluation is not be required until later in the Program.

The most important next step is to confer with MIPU-PWD, other Vanuatu Government stakeholders, and the ISP about the review's findings and recommendations. DFAT Port Vila will lead this process, which will aim for a consensus around mid-term changes to the R4D design and implementation. Next steps after that would be:

i. **Investment Concept**: DFAT Port Vila (leading), MIPU-PWD and the ISP would draft an 'Investment Concept' (DFAT nomenclature) setting out the revised Program design through until the end of the current Phase. This would require higher level DFAT and GoV endorsement.
ii. **Transition plan**: DFAT, MIPU-PWD and the ISP would agree a transition plan forward to the revised Investment Concept.
iii. **Contract amendment**: DFAT and the ISP would negotiate a contract amendment.
iv. **Implementation**: PWD and the ISP would execute the transition plan.
v. **Independent evaluation**: DFAT and PWD would conduct an independent evaluation of R4D later this Phase. DFAT and PWD would consider a joint Independent Evaluation-Investment Design approach.

1. Introduction

1.1 The Roads for Development program

The Roads for Development (R4D) Program is the second phase of a 15-year commitment by the Government of Australia (GoA) to the Vanuatu Transport Sector Support Program (VTSSP). The first phase – VTSSP I – ran from September 2009 to July 2012 and spent AUD $16.9 million on road rehabilitation and maintenance works[1] and equipment, capacity development technical assistance, and program management services.

VTSSP Phase II (VTSSP II) was designed in 2012 and the implementation service provider (ISP – SMEC International) was awarded the implementation contract on 1 July 2013 on a three years plus one basis. VTSSP II was renamed *Roads for Development* in late 2013. The R4D design proposes an $A37 million investment over four years on road rehabilitation and maintenance works, capacity development technical assistance, and program management. The two R4D financing agreements signed by GoA and the Government of Vanuatu (GoV) total $A26.5 million over three years.

The development goal of R4D agreed by stakeholders during R4D's inception phase in early 2014 is: ***People in Vanuatu have increased access and derive economic benefit from a well-maintained, affordable, and integrated road network.*** [2]

R4D has two key end-of-program outcomes:

- ***The Public Works Department's (PWD) strategic framework is guiding management and operational decision-making.***
- ***PWD is managing and maintaining its road network to a high standard in a cost effective manner.***[3]

1.2 The interim review purpose and scope

Overall purpose: The original purpose of the interim review (IR) was to provide high quality information and analysis of R4D activities and outputs to help primary users[4] decide on the allocation of R4D and PWD resources during 2015. As it progressed, the IR identified several issues that were fundamentally affecting the likely success of R4D. The purpose of the IR then broadened: 'To provide analysis and recommendations for primary users to consider mid-term adjustments to the design and delivery of R4D'.

The IR also assesses R4D's ongoing compliance with DFAT gender equality, social inclusion, and environmental safeguards policies and how compliance is affecting R4D success.

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[1] Road works were undertaken on Ambae island, Malekula island, and Tanna island.

[2] PWD and the ISP ran a Theory of Change workshop during the Inception Phase. A revised Goal statement (above) was agreed during the workshop. The original Goal statement in the PDD (and the ISP Scope of Services) was *'People in Vanuatu have increased access to a well maintained, affordable and integrated transport network'.*

[3] The PDD Outcome statements were: a) *PWD institutional transformation: MIPU-PWD has the skills, systems and resources necessary to plan and manage its agreed core mandate*; and b) *PWD service delivery: MIPU-PWD operations capably maintains key road transport infrastructure.*

[4] The following interim review primary users are noted: First Secretary, DC, AHC Port Vila; Counsellor, DC, AHC Port Vila; Director, Vanuatu Desk, DFAT Canberra; Program Manager, AHC Port Vila; Director, Public Works Department, GoV; Deputy Director, PWD, GoV; Team Leader, R4D (SMEC); Program Director, R4D (SMEC).

Scope: This is a **review**, not an evaluation[5]. The IR relies predominantly on professional judgement and a synthesis of available data. The IR's specific and targeted questions originally aimed at informing immediate management decisions on work planning; but they also examined Program performance **issues** (emergent problems). As the significance of the emergent problems became clear, the IR focused also on recommending appropriate management responses. The scope was also expanded to examine the adequacy of progress towards end-of-program outcomes. The IR does not examine the causal mechanisms resulting in change from R4D investments, which is better left until the independent evaluation towards the end of the Program[6].

1.3 Key review questions

The following key review questions were agreed:

About physical works:

Q1: To what extent does the type and location of road rehabilitation work respond to contextual realities around PWD-R4D budgets, rehabilitation costs, and rates of road deterioration?

Q2: To what extent does the type and location of maintenance work match the physical characteristics of roads and each road's intended level-of-service?

Q3: To what extent are PWD and R4D working in partnership in the delivery of road rehabilitation and maintenance works and related planning and preparatory activities?

About PWD capacity development[7]:

Q5: How effectively does R4D capacity development support target PWD's human resources challenges most critical to the delivery of road management services?

Q6: How effectively does R4D capacity development support target institutional impediments to sound public expenditure management?

About gender equality, and social and environmental safeguards:

Q7: To what extent are island-based contractors (IBCs) providing equal employment opportunities to local women on R4D-funded road works?

Q8: To what extent are IBCs protecting their workers from workplace health and safety risks?

Q9: To what extent are IBCs meeting reasonable environmental management standards?

About program management:

Q10: How effective is strategic oversight and governance provided by the Program Steering Committee?

Q11: How effectively is R4D technical assistance internally vetted and quality controlled?

About progress towards end-of-program outcomes (EOPOs):

Q12: To what extent is Program implementation on track to achieve agreed EOPOs?

Background is provided at the start of each question discussion. Then each review question is broken down into the 'four analytical questions' posed in the DFAT Evaluation Capacity Building Program Key

[5] An **evaluation** refers to a study that employs a more sophisticated design using robust methods and usually requiring a longer time frame to collect, analyse and report on new information. DFAT investment evaluations are usually carried out by an 'independent' team.

[6] Currently, R4D's impact evaluation work is only beginning.

[7] The broader issue of PWD institutional 'transformation' (the term used in the PDD) and PWD performance is addressed in Section 6 on progress towards end-of-program outcomes.

Concepts Paper: a) what is the **current situation**; b) what are the **factors** that have led to the situation; c) what are the **implications** for Program success; and d) what are the **responses** that have been taken thus far (and their success), and what future responses are still required.

1.4 Review context and activities

Context: R4D has its own approved Monitoring and Evaluation (M&E) Plan, which is being executed by the ISP. The IR's review questions (section 1.3) are framed so as to avoid pre-empting or overlapping unhelpfully with the M&E Plan. The M&E Plan cites four (4) 'core evaluation questions', linked to R4D's end-of-program and intermediate outcomes. The IR's question on PWD capacity development intersects with the M&E Plan's Question 4, but the IR's inquiry is narrower. The IR's assessment of progress towards EOPOs is preliminary only, draws on limited evaluative information, and is focused on just a few areas that already look like being critical to Program success.

DFAT Port Vila is of the view that late 2014 was a proper juncture to conduct an IR of R4D: a) it was 12 months since most of the ISP team mobilised; b) R4D's physical works activities are underway now on all the three VTSSP1 islands and there are clear lessons emerging from this work; c) physical works experiences have thrown up issues and questions that need management responses now; d) management wants to be sure that capacity development (CD) activities are sharply focused on priority areas that will improve PWD's in-field performance and that R4D is clear on the strategic direction of its CD and institutional 'reform' component; and e) DFAT's infrastructure adviser based in Port Vila is now able to synthesise findings from monitoring visits to all R4D islands and from many consultations with PWD, the ISP, DFAT and other stakeholders over five months.

Activities: DFAT's Port Vila infrastructure adviser is the principal author of the IR. He used a mix of activities and methods to prepare the IR:

- Monitoring visits to Ambae, Pentecost, Malekula, and Tanna islands, during which the infrastructure adviser and DFAT DC staff visited treatment roads, inspected PWD provincial operations and facilities, conferred with PWD provincial management and staff, attended training delivered by R4D, and conferred with IBCs owners and workers, local business owners, farmers, and community representatives.
- Conferred time-to-time with MIPU-PWD management and technical staff.
- Conferred frequently with the R4D ISP team leader and technical specialists[8].
- Conferred frequently with DFAT's DC team, Port Vila, including during monitoring visits.
- Reviewed all substantive technical and progress reports and papers produced by R4D specialists, R4D background documents, and other R4D-related reports (e.g. the annual external audit of acquittal reports).
- Participated in PWD and R4D presentations, workshops, and other events.

The DFAT infrastructure adviser did not conduct additional monitoring visits specifically for the IR. He did confer with primary users during the writing of the IR.

The adviser drafted preliminary review questions, which were reviewed by several primary users and a DFAT M&E adviser in Canberra. The questions were finalised, based on feedback received. A draft IR report was circulated internally for comment within DFAT in January 2015. This final draft IR reflects the feedback, which overall endorsed the IR findings and recommendations.

1.5 Structure of this report

Section 1: The introduction provides background to the review and its approach.

[8] DFAT's Port Vila infrastructure adviser works approximately 60% of his time from a workstation in PWD, Port Vila, and the remainder from a workstation in the AHC, and in the field.

Section 2: This section answers three key questions relating to physical works.

Section 3: This section answers two key questions relating to capacity development.

Section 4: This section answers three key questions relating to how IBCs handle gender equality, and social and environmental safeguards.

Section 5: This section answers the two key questions relating to program management.

Section 6: This section answers the one question on progress towards EOPOs.

Section 7: This section presents the IR's consolidated findings and recommendations.

Section 8: This section sets out next steps.

2. About physical works

The following questions assume that R4D's physical works component remains relevant – that rehabilitating and maintaining rural 'arterial'[9] roads remains the right thing to do in the targeted locations. The independent evaluation later in the Program will examine and re-verify or contest program relevance, amongst other things.

This section does not address the adequacy of physical works progress against intermediate and end-of-program targets (see Section 6). The analysis below examines R4D's approach to physical works and the allocation of program resources.

2.1 To what extent does the type and location of road rehabilitation work respond to PWD-R4D budgets realities, rehabilitation costs, and rates of road deterioration?

2.1.1 Background

The original VTSSP II Program Design Document (PDD – 2012) proposed a 'program' approach and so it does not detail specifically what type of rehabilitation[10] works will be carried out on which sections of road in each locality. The PDD states that VTSSP I was funding full rehabilitation **and** spot improvements. But other information provided before and during ISP mobilisation was interpreted to mean that VTSSP I had fully rehabilitated all road sections to a uniformly 'good'[11] condition; and that this approach should continue for R4D. The prescribing of a single physical works key performance indicator (KPI) – '350 km of rehabilitated road' – reinforced this interpretation. Moreover, the '350 km' KPI was taken to mean that all these 'good' condition VTSSP I roads would still be in 'good' condition at the start of R4D; that R4D would only have to maintain – not re-rehabilitate – VTSPP I roads. The reality is different:

i. VTSSP I rehabilitation varied. As stated in the PDD, some sections were fully rehabilitated to a 'good' condition; other sections were spot improved only so that they would be trafficable during wet weather – but they remained in 'poor' or even 'bad' condition[12].
ii. There was an 18-month gap when VTSSP I ended and the first funding of R4D. PWD did not carry out routine maintenance on VTSSP I sections during this interim period. So roads deteriorated and only concrete sealed sections were still in a 'good' condition at the start of R4D.
iii. Also, the rate of deterioration on some sections has been unexpectedly rapid, because of: a) high rainfall; b) the variable quality of pavement materials; and c) the variable quality of workmanship.

So not only did R4D start with deteriorated roads but it is evident that maintaining Program roads in stable, 'good' condition is expensive. There are insufficient funds from PWD and R4D combined

[9] 'Arterial' is the term used in the Vanuatu Public Roads Act 2014. In rural areas, roads are classified either as 'arterials' or 'feeder' roads. R4D only works on arterials. See the Act for definitions.

[10] The VTSSP II Program Design Document (PDD) variously refers to road 'rehabilitation', road 'improvement', and road 'reconstruction'. The range of road works is described in Appendix A of Annex 3 on page 59 of the PDD. R4D uses the term 'rehabilitation' interchangeably.

[11] 'Good' condition is defined in R4D's new road condition survey, which is consistent with international standards for gravel roads. Essential elements of a 'good' condition road are: a) the gravel surface is smooth, providing a comfortable ride at least up a minimum prescribed travel speed; b) the road profile meets minimum geometric standards for cross-fall slope (crown shape) and consistency, longitudinal drainage, and so on.

[12] The original VTSSP I design proposed spot improvements only and all early works *were* of this type. The DFAT Governance for Growth (GfG) team reviewed these works mid-term. They found that road sections being spot improved lacked basic 'engineering' and were in such bad condition that they needed to be fully reconstructed in order to create genuinely 'maintainable' roads. Overall, about half of all VTSSP I rehabilitation comprised full reconstruction.

to: a) re-rehabilitate (periodic maintenance treatment) VTSSP I roads to 'good' condition; b) fully rehabilitate new sections of road to 'good' condition; and c) maintain 'good' condition roads in that condition. R4D's 350 kilometre KPI for road works is not achievable (Section 2.1.4)

More important, rehabilitating and maintaining 350 kilometres in 'good' condition may not be the highest priority. PWD management is of the view that maximising overall rural access will deliver more, and more relevant, benefits to island populations; and that providing **basic** access[13] to services and markets is best achieved through spot improvements across the entire arterial network rather than focusing on keeping the core[14] road network in 'good' condition.

What's missing is a National rural roads accessibility policy that decides these questions and formally establishes road-specific 'level-of-service' of targets for Vanuatu's rural road network.

2.1.2 Current situation (please see the island maps in Annex 1)

The first structure repair and materials stockpiling contracts funded by R4D were awarded in March 2014, after funding became available in February 2014. The first few contracts for new structures were awarded in March, with most following in August. R4D prepares annual work plans aligned with the Government of Vanuatu's (GoV's) calendar year financial cycle. The following summarises the type of rehabilitation work, the value of contracts executed to-date, and the respective shares of rehabilitation expenditure from the R4D 2014 works program:

i. **Quarrying and stockpiling road material using PWD force account**: Vanuatu Vatu (Vt.) 312.000; 0.16% of total works contracts executed.
ii. **Quarrying and stockpiling road material using national contractors (NCs) or equipment hire contracts (EHCs)**: Vt.19,529,550; 10.20%.
iii. **Loading and haulage of quarried materials by EHC**: Vt.4,940,000; 2.58%
iv. **Repairs to VTSSP I structures, concrete runways and other structures using IBCs**: Vt.4,432,600; 2.31%.
v. **Excavation for structures by force account**: Vt.715,479; 0.37%.
vi. **Spot improvements** (new concrete runways, structures, spot pavement works) **using IBCs**: Vt.97,188,746; 50.75%.
vii. **Full length pavement rehabilitation using force account**: Vt.3,946,594; 2.06%.
viii. **Full length pavement rehabilitation using EHCs or NCs**: Vt.0; 0.00%
ix. **Full length periodic maintenance[15] to VTSSP I roads using EHCs or NCs**: Vt.0; 0.00%.
x. **TOTAL 2014** physical works budget executed to-date: **Vt.191,507,622** (A$2,128,000 equivalent at Vt.90/A$).

The important characteristics to note are: a) the approach to rehabilitation works is adaptive and varies from location to location; b) most works are spot improvements undertaken by IBCs; c) as explained above, there has been little full length rehabilitation/reconstruction, whereas leading up to mobilisation, this was expected to be the dominant type of work. Quantities of works are

[13] 'Basic' access is variously defined in the international literature. For the purposes of this review, it refers to a level of service wherein a 4-wheel drive vehicle can pass along the entire length of the road in all weather conditions except for a maximum of 4-5 days in any given year. This is consistent with the International Development Association's (IDA's) definition of 'all-weather access' in the rural access index (RAI).

[14] What constitutes a 'core' road network is not defined by PWD or R4D. But the core roads on each island can be informally identified in terms of traffic volumes, traffic type, and links between activity centres, main infrastructure and so on. See more on this in subsection 2.1.5.

[15] 'Periodic' maintenance for gravel roads includes re-graveling, reshaping and repairs to structures and road furniture. It is typically required every three to five years, depending mainly on the rate of gravel loss. Periodic maintenance under R4D has had to be brought forward because of the rapid deteriorating of several VTSSP I road sections. These works are akin to 're-rehabilitation' and are therefore included here as rehabilitation works.

not detailed above and the IR does not attempt to analyse value-for-money of the various works categories. The later independent evaluation should cover this.

2.1.3 Factors leading to this situation

R4D work planning has largely followed the works prioritisation guidance in the PDD and handover documents[16]. Maintaining and repairing VTSSP I roads is the highest priority (please see Section 2.2) followed by rehabilitation of additional sections selected through multi-criteria analysis[17]. The stockpiling is in preparation for: a) repairs and periodic maintenance work on deteriorated VTSSP 1 sections; and b) rehabilitation of additional road sections. The IBCs are mostly constructing drainage and crossing structures, concrete runways on steep sections, and spot pavement improvements on additional sections identified for the Year 1 program in the PDD.

PWD procured no IBC contracts during the 18 months between VTSSP I and R4D. IBCs were an innovation of VTSSP I, and R4D management saw the need to get the IBCs back to work as soon as possible in the program. IBCs are also relatively easy and fast to contract and mobilise. Hence, the relatively large expenditure on IBCs in the 2014 work plan.

EHC and NC contracts for the larger, full-length rehabilitation and periodic maintenance works are more complex and take longer to procure. There are also few contractors in Vanuatu willing and able to undertake civil works on the islands. This also makes it difficult to achieve value-for-money from EHC and NC contracts. Contracts cannot proceed unless quarrying issues are resolved and stockpiling is well-advanced; this has been problematic, particularly on Tanna, where most of the VTSSP I road periodic maintenance/re-rehabilitation work is required. All things considered, R4D has responded appropriately to competing demands for rehabilitation works.

There is insufficient R4D (and PWD) funding to fully rehabilitate/reconstruct to 'good' condition all the road sections identified in the PDD for Year 1 works. There is only enough funding for a mix of spot improvements and full-length rehabilitation.

[16] The VTSSP I Extension TA Activity Completion Report (June 213) has detailed recommendations for priority road works for Phase II.

[17] Multi-criteria analysis is a tool for selecting preferred options from a long-list of options – in this case, what road sections to rehabilitate. The analysis is usually presented as a matrix with options on one axis and selection criteria on the other. Each option is scored against each criterion and the scores are totalled. Scores can be weighted to reflect the relative importance of each criterion. The highest priority road section is that with the highest score – through to the lowest priority with the lowest score.

Typical examples of road conditions & works

A 'fair' to 'good' condition road fully rehabilitated under VTSSP 1 (Malekula). It is well formed but needs re-gravelling to be made fully 'maintainable'.

A fully rehabilitated road under VTSSP 1 that deteriorated to 'poor' condition prior to the start of R4D (Tanna).

This wheel track road on Tanna provides a comfortable 40 kph ride on a 'non-core' national road – a 'fit-for-purpose' road.

A low-level water crossing (drift) and concrete strip runway built by an IBC (Ambae). This spot improvement increases all-weather accessibility.

A corrugated iron and concrete drainage culvert built by an IBC (Tanna).

IBC workers excavating within a steep gully to build a low-level water crossing (Ambae). No safety gear worn; and an environmental risk from flash flooding.

2.1.4 Implications for program success

R4D will not achieve 350 km of rehabilitated road if 'rehabilitation' means full length reconstruction to a 'good' condition[18]. It can achieve 350km of mixed rehabilitation that includes a large portion of spot improvements to provide basic access.

Please note the following additional implications relevant to program success:

i. Spot improved roads are not genuinely 'maintainable' in a stable condition. Ongoing routine maintenance will slow down deterioration, but for instance, a 'fair' to 'poor' condition road cannot be effectively graded[19]. This will reduce the sustainability of R4D improvements.
ii. There is additional reputational risk if a perceived 'Australian road' is in only 'fair' to 'poor' – or even, 'bad' condition, notwithstanding that it provides basic assess to communities and farmers that were isolated before.
iii. Spot improving an island's entire 'arterial' road network will redirect resources from the network's 'core' roads. As a rule-of-thumb, core roads typically comprise 20%-40% of the entire main road network and carry 60-80% of all traffic. Keeping the core roads in 'good' condition yields the highest economic returns on investment.

2.1.5 Response thus far and going forward

The R4D ISP and the DFAT infrastructure adviser have articulated the issues described above and they are well-understood by DFAT and PWD. The R4D road maintenance engineer (RME) on Tanna produced and presented to DFAT and PWD an analysis of works programming options within the likely budget framework going forward. This exercise articulated the issue. It also highlighted that R4D (and PWD) does not have a clear decision framework for programming rehabilitation works. Without a clear policy directive, R4D road rehabilitation will reflect much the same mix of works through to the end of the program.

PWD (and R4D) lacks a **national rural road accessibility policy** underpinned by agreed **level-of-service** standards[20]. The process below would start to address this gap.

RECOMMENDATIONS going forward:

i. **A National rural roads accessibility policy**: R4D should immediately engage the MIPU-PWD on the benefits of a National rural road accessibility policy and should work with PWD to prepare a policy development plan.
ii. **TA from R4D**: Taking as an example the Policy development approach shown over-page, R4D technical assistance could help PWD with: a) establishing a framework for PWD to document the road network (actual survey & data collection, data analysis, and data management could be outsourced locally); b) analyse and estimate unit costs; c) enunciate the guiding principles for GoV to consider; d) enunciate level-of-service descriptors and road classifications; e) quality assure the network classification process; and f) help write the Policy's programming and implementation guidelines.

[18] The VTSSP2 PDD does seem to mean this. It variously refers to the rehabilitation (and maintenance) of 350km of 'core' roads and 'priority' roads (e.g. page 21, para. 73).

[19] There are exceptions, for instance where the *in-situ* ground is gradable scoria or volcanic ash.

[20] Infrastructure service delivery policies, in jurisdiction and in any sector – national, subnational, water supply, power supply, transport, and so on – typically hinge around agreed **level-of-service** standards. The infrastructure owner or operator works to meet these standards and performance is assessed against the standards. The standards are reviewed from time-to-time and policy may be adjusted.

Document the road network:

- Road inventory.
- Road condition survey & management system.

Establish unit costs for roads works & maintenance to achieve target levels-of-accessibility

Agree budget parameters:

- Project National budget outcomes.
- Project development partner flows.
- Project resource allocations across rural & urban, routine maintenance, periodic maintenance, emergency repairs, rehabilitation & improvements.

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Establish guiding principles:

- Road accessibility targets will be calibrated according to likely available resources.
- The estimated forward budget envelope for managing the road network is Vatu XXX million.
- The Policy applies to urban and rural roads, or just rural roads.

For rural and town roads:

- The arterial road network (national roads) is not homogeneous. Arterial roads will be further classified according to function: e.g. 'core' and 'non-core' roads. Amend Public Roads Act?
- Consistent with the budget envelope, not all 'non-core' national roads can be maintained in good condition and as all-weather passable for 4-wheeled vehicles and trucks.
- Levels of accessibility will vary across the network according to their classification (function).
- Roads will be classified by applying agreed functional criteria, calibrated to the budget envelope.

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Develop parameters for allocating available resources across different levels-of-accessibility:

- Establish level-of-service targets for each class of road.
- Broad budget split between urban roads and rural (& town) roads.
- Broad budget split between core arterials and non-core arterials (economic returns vs. rural accessibility index – RAI)

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Classify the road network:

- Establish criteria for classifying roads.
- Conduct multi-criteria analysis, ranking road sections for classification as 'core' or 'non-core'. Calibrate according to budget split and unit costs.
- Consultations ⟶ approve road network classification (to be reviewed periodically).

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Articulate the (Rural) Road Accessibility Policy:

- Every National road on every island is classified.
- Every National road will thereby have an approved targeted level-of-accessibility (service).
- Programming and implementation guidelines.

⟹ **SUBSECTOR PLAN of ACTION (STRATEGY)**

iii. **Rehabilitation works consistent with the Policy**: Each year's roads rehabilitation program funded by R4D (together with PWD) should then be consistent with the level-of-service targets established in the National rural roads accessibility policy for each island's road network.

iv. **Heavy plant for the core**: PWD should be encouraged to concentrate its limited heavy road plant on road formation and pavement work on core roads only.

v. **Labour-based for the non-core**: If the National rural roads accessibility policy genuinely reflects the limited budgets available for Vanuatu's road subsector, levels-of-service for non-core roads – and their standards and specifications – will be modest[21]. Labour-based works could be the best way for PWD to bring these roads to all-weather (basic access) condition.

vi. **Tractor-based equipment**: Tractor-based equipment should be used for: a) formation and pavement works on volcanic ash and scoria roads; b) supporting IBCs building structures and laying pavement seals; and c) supporting labour-based rehabilitation works on non-core roads.

ADDITIONAL NOTES:

i. **Identifying the core network**: Identifying each island's core roads (the most economically and socially important 20%, thereabouts) can be a relatively simple exercise. Key criteria like traffic volumes, populations and locations, activity service centres, location of key infrastructure, economically productive areas are already known. Desk analysis can generate initial recommendations, which can then be workshopped by direct stakeholders. It should be done quickly – it was a PDD recommendation – but stakeholders should know that the result can be re-visited periodically and with broader consultations.

ii. **Calibrated to funding**: Since maintaining gravel roads in 'good' condition on the islands is expensive – and there will be limited funds in the future for sealing (see iii below) – the 'core' should be tightly calibrated.

iii. **Core roads staged construction**: Core roads should be rehabilitated and maintained in 'good' condition; this could be the early works of a 'staged construction' approach that would eventually see all core road sections sealed. Vanuatu has excellent synergy opportunities between R4D and the China EXIM Bank-funded rural road sealing program. Core roads rehabilitated by R4D could be relatively inexpensively bitumen-sealed using China funding, as it proposed for Malekula.

2.2 To what extent does the type and location of maintenance work match the physical characteristics of roads and each road's intended level-of-service?

2.2.1 Background

The PDD also proposed a 'program' approach for maintenance works. The PDD describes the range of maintenance works (Annex 5, page 68) but does not specify what type of work should be carried out on specific roads. Because other information provided before and during ISP mobilisation was interpreted to mean that VTSSP I had fully rehabilitated most road sections to a uniformly 'good' condition – and would be taken on by R4D in this condition – it was assumed that R4D routine and

[21] Non-core roads on the islands generally carry less than 50 vehicles per day. Such roads need only be single lane (3 metre maximum carriageway width), with sufficient 'engineering' just to drain water off the pavement, culverts, drainage structures across water courses, and concrete strips on steep sections. Tyre-track pavements are fit-for-purpose for many non-core road sections.

periodic maintenance works would be more-or-less standardised. The situation at the start of R4D was very different.

After 18 months of neglect, no reconstructed VTSSP I section still had enough base course gravel to enable routine light grading. So no VTSSP I section was still in a genuinely 'maintainable' condition at the start of R4D[22]. And at the end of R4D Year 1, this remains the case because until now there has been no periodic maintenance/re-rehabilitation[23]. To be in a 'maintainable' condition, a gravel road must retain a minimum amount of base course material that can be bladed back into the centre of the carriageway to re-establish the crowned profile and to smooth the pavement surface.

A spot improved road is typically not in a genuinely maintainable condition. It still should be maintained, but to slow the rate of deterioration, not to retain it in a stable condition.

Local natural conditions and the state of the road will determine the 'best fit routine maintenance regime for each section, and it varies considerably across VTSSP I and R4D roads[24].

2.2.2 Current situation

The first R4D-funded maintenance contracts were awarded in March 2014, with the first round of IBC maintenance work starting in April. IBCs have so far carried out all routine maintenance: a) grass cutting; b) clearing side drains, inlets, culverts and run-outs; c) spot pavement repairs; and d) labour-based pavement reshaping. Twenty three separate contracts were awarded for a total of Vt.54,265,729 being 28.34% of total R4D works contracts (A$60,295 equivalent at Vt.90/A$).

R4D has not yet funded any routine maintenance light grading-rolling.

2.2.3 Factors leading to this situation

R4D work-planning has largely followed the works prioritisation guidance in the PDD and handover documents (see footnote 14). Maintaining and repairing VTSSP 1 roads is the highest priority and this has been the focus of IBC work to-date.

Routine maintenance machine grading-rolling (reshaping) has not been possible because VTSSP 1 roads have not yet had the repairs/periodic maintenance needed to return them to a fully maintainable condition (Section 2.1.3).

2.2.4 Implications for program success

Without machine-based routine maintenance – regular light grading and rolling (reshaping) – fully rehabilitated/reconstructed VTSSP 1 roads will continue to deteriorate. IBC (and community contract) labour-based routine maintenance will slow the rate of deterioration but will not maintain these roads in a stable 'good' condition. This particularly applies to core roads.

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[22] An essential routine maintenance activity for a fully rehabilitated/reconstructed gravel road is light grading and rolling, two to three times per year depending on local conditions, the type of pavement material, and traffic [PDD Annex 5 does not specifically include light grading and rolling as part of routine maintenance, which may just be an oversight].

[23] Periodic maintenance of pavements includes repairing the sub-base, re-gravelling and reshaping the road profile. The PDD proposed that PWD's heavy plant (excavators, tipper trucks, machine graders, water bowsers, and rollers) would be used for this purpose. During Year 1, PWD has not made its plant available to undertake periodic maintenance on any VTSSP I roads. And apart from materials quarrying and stockpiling, no NC or EHCs have yet been procured to do periodic maintenance works.

[24] For instance, grass cutting on spot improved road sections in Ambae is less important than grass cutting on fully rehabilitated roads in Tanna.

Likewise for spot improved sections (non-core roads), which are not fully maintainable, IBC labour-based routine maintenance will only slow the rate of deterioration and keep roads passable for longer before they need to be re-formed[25].

The impact on program success depends ultimately on PWD's capacity and willingness to use their heavy plant to re-form roads when they deteriorate to a point that compromises their intended level-of-service. This particularly applies to core roads. R4D does not and never will have the necessary heavy plant for this work; and there is very little privately owned heavy plant on the islands.

2.2.5 Response thus far and going forward

R4D is procuring NCs and EHCs to undertake the repairs and periodic maintenance required to restore VTSSP 1 core sections to a fully 'maintainable' condition. These sections can then be lightly graded and rolled (reshaped) when necessary to stabilise them in 'good' condition. But this will need PWD to assign its limited graders, water bowsers (tanker trucks), rollers and operators for the purpose. Meantime, labour-based work continues – grass cutting, clearing drains, etc.

Labour-based routine maintenance is tailored to the local situation. For instance, it includes grass cutting, drainage maintenance, and some limited pavement re-shaping on fully rehabilitated sections; whereas the work focuses on clearing drainage structures and spot pavement repairs on spot improved road sections.

PWD is currently procuring tractor-based equipment (R4D-funded) that will be used mainly for routine maintenance and spot repairs. Tractors may be able to do re-gravelling and re-shaping work on Ambae (scoria) and in the Whitesands area of Tanna (volcanic sand/ash) that would otherwise require PWD's heavy plant.

The policy gap explained in Section 2.1 in the same way impacts R4D and PWD's road maintenance programming. Without level-of-service targets for each road, it is difficult to optimise maintenance programming.

RECOMMENDATIONS going forward:

i. **A National rural roads accessibility policy**: R4D should immediately engage MIPU-PWD on the benefits of a National rural road accessibility policy and work with PWD to prepare a policy development plan (please see subsection 2.1.5).
ii. **Maintenance works consistent with the Policy**: R4D should help PWD apply the policy to road maintenance programming. Maintenance should aim to achieve the level-of-service target established for each road in the National rural roads accessibility policy.
iii. **Heavy plant for the core**: R4D should encourage PWD to assign the highest priority for its heavy plant to routine maintenance of its core roads that are in a fully 'maintainable' condition – for light grading and rolling 2-3 times per year. Without this work, outputs from R4D road rehabilitation works are not sustainable. Periodic maintenance of core roads should also be equipment-based, preferably outsourced.
iv. **Labour-based – core roads**: For core roads, IBCs and community contracts should continue to be used for the labour-based maintenance of drainage structures and for grass cutting. But no manual pavement work should be required for fully maintained 'good' condition

[25] Re-forming a spot improved road will not bring it to a 'good' condition, unless it is a full rehabilitation/ reconstruction, including hauling, spreading and shaping new pavement gravels, and shaping longitudinal drains and run-outs, etc. Otherwise, re-forming will tend to mix whatever imported gravels there are on the pavement with *in-situ* materials, resulting in a temporary smooth, well-profiled pavement that can be kept passable for a time with spot routine maintenance.

core roads. Regularly graded/rolled gravel roads should not require pothole patching, manual reshaping, etc.

v. **Labour-based – non-core roads**: For non-core roads, all routine maintenance should be labour-based (using hand-tools and light mechanical equipment). Labour-based works are appropriate for pavement patching, keeping drainage structures clear, and brush cutting if needed. Manual reshaping is not possible on hardened coronous pavements.

vi. **Tractor-based equipment**: Tractor-based equipment should be used for: a) routine pavement maintenance of volcanic ash and scoria core roads; and b) supporting labour-based maintenance.

2.3 To what extent are PWD and R4D working in partnership in the delivery of road rehabilitation and maintenance works and related planning and preparatory activities?

2.3.1 Background

This question is central to achieving the high order service delivery end-of-program outcome: *PWD is managing and maintaining its road network to a high standard in a cost effective manner*. R4D is designed, not to manage and maintain roads, but to help PWD fulfil its core service delivery mandate. It can only do this by working in genuine partnership with PWD. This is a central principle cited in the VTSSP II Direct Funding Arrangement.

This situation was not reached in VTSSP 1; and it is challenging now for R4D.

2.3.2 Current situation

The current situation varies across PWD divisional offices, but overall, R4D and PWD divisional works planning is well coordinated. R4D RMEs confer with their Divisional Manager (DMs) and staff counterparts leading up to PWD's annual Manager's workshop in Port Vila in November at which divisional work plans are finalised and consolidated. The RMEs explain R4D's planned works to the DM and staff and they discuss and agree what support the Division can provide, which is typically to provide heavy plant for haulage and full length pavement formation work. Most or all of these requests are endorsed and written into the Division's work plan.

But the coordination and partnering breaks down during implementation in several important respects:

i. Much of the committed PWD support isn't delivered or is delivered late, only partially, or even on the wrong road section.

ii. In one Division in particular, and to some extent in the other two, DMs and senior staff take little active interest in R4D-funded works. The Divisions do not adequately engage with R4D-funded activities.

iii. R4D-funded but PWD-managed site inspectors (SIs) perform poorly.

iv. R4D-funded works are managed and supervised wholly by the RMEs, with little support from Divisional personnel.

2.3.3 Factors leading to this situation

i. Anecdotal advice suggests several reasons why DMs and senior staff do not engage: a) There are no incentives or sanctions to encourage DMs to engage; b) interpersonal problems between several past RMEs and their Divisional counterparts; c) a natural inclination for people to focus on their own mandates and not on what they perceive as someone else's mandate; d) a natural inclination for DMs to focus on what they perceive

as their comparative advantage, which is heavy plant-based road works; and e) DM's disinterest in working with IBCs.

ii. DMs and their civil engineers are unwilling or unable to performance-manage their field staff, including the SIs.

iii. Because DMs aren't partners in R4D-funded works, they do little to help R4D deal with rent-seeking behaviour by local resource owners and suppliers. It may also be that some DMs are unable to influence this rent-seeking behaviour (please see below).

iv. The Divisions' heavy plant is old, unreliable, and not well-managed. The equipment is often not available when required.

v. There are too few qualified and experienced plant operators. And plant operators are generally not performance-managed and are unreliable.

vi. Maintenance budget allocations frequently need to be re-allocated to undertake emergency road repairs or to pay for unbudgeted plant repairs.

vii. Divisional work plans are sometimes overridden by directives from outside the Division[26].

viii. Budgets for works are delayed or with-held.

Factors i-iii above indicate that PWD has a workforce planning problem at the DM level. DMs move in and out of these positions, from Division to Division. If they lack a background in road management and/or they haven't been able to establish solid working relations with local players, then they find it hard to be effective problem solvers and partners.

2.3.4 Implications for program success

If the challenge is not met, R4D will not have resulted in *PWD managing and maintaining its road network to a high standard in a cost effective manner*. R4D, as a parallel service delivery program, will have improved rural access in the four islands. But PWD's service delivery performance will be little improved.

2.3.5 Response thus far and going forward

The collaborative culture between PWD and R4D in the Port Vila head office is strong. The ISP is responsive to and works collaboratively with PWD management.

The ISP has taken steps to increase the Divisions' ownership and involvement in R4D-funded works, including the work planning process described in Section 2.3.2. The RME terms-of-reference require them to work collaboratively with their Divisional counterparts; the two remaining RMEs perform well and make all reasonable efforts to engage positively with their counterparts[27].

On Tanna and Ambae, PWD plant and operators are supporting the work of R4D-funded IBCs. For instance, on a 13km section between Lolopope and Loloaru on north Ambae, a PWD bulldozer and operator[28] are re-forming this 'bad' condition road so it is passable, and IBCs are following along building drainage structures and concrete runways.

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[26] An example of outside influence thwarting a road maintenance work-plan is unfolding in Penama Province. Most of the Division's heavy plant was shipped to Maewo island in early 2014 and remains there. This made it impossible to complete Penama's 2014 road maintenance work-plan, including routine maintenance on roads rehabilitated under R4D. The reviewer was told that the instruction to send this plant to Maewo originated from outside PWD.

[27] The VTSSP interim phase Activity Completion Report emphasised the crucial need for RMEs to develop effective relationships with their Divisional counter-parts.

[28] All plant and operator costs are met by R4D, and the formation work is slow and behind schedule; but it is the start of genuine partnering between PWD and R4D rehabilitation works.

MIPU-PWD has sought Government approval to recruit three senior road management engineers from Fiji under a Melanesian Spearhead Group initiative. PWD plans to appoint two of these engineers to DM positions.

But for the most part, RME collaboration efforts are frustrated and the ISP can only really execute a parallel works program.

RECOMMENDATIONS going forward:

If the issue is not resolved, R4D will not achieve its service delivery end-of-program outcome. R4D will be less relevant and may no longer be the 'right thing to do'. A fundamental change of approach is needed: to introduce incentives for Divisions to collaborate with R4D and to divert support away from non-responsive Divisions:

i. **No separate R4D works plan**: There should be no R4D separate works plan and RMEs should be withdrawn from the field.
ii. **R4D support open to all**: PWD should be offered a road works support budget ceiling through R4D, not assigned to any particular province or location.
iii. **Demand-driven PWD support**: PWD divisional managers would bid for R4D support through their annual work planning exercise.
iv. **Selection process**: R4D and PWD management would review these bids and determine what works R4D would help finance. All planning and scoping would be the responsibility of PWD, with some guidance and mentoring from R4D.
v. **Site inspectors**: R4D would no longer fund SIs.
vi. **Changed RME role**: RMEs would become, or would be replaced by internationally recruited supervision engineers/site foremen who would be centred in the Port Vila hub (and possibly Luganville), and would be assigned to the field to inspect and co-certify works. Depending on skill sets, R4D supervision engineers would also mentor Divisional counterparts.
vii. **Fiduciary checks**: R4D payment for works would require: a) procurement 'no-objection' by an R4D procurement and financial management specialist; b) payment clearance by the R4D supervision engineer/site foreman; and c) other R4D fiduciary checks as required.
viii. **Transition:** There would need to be a graduated transition from R4D's current physical works supply-driven approach to a demand-driven approach. Also, DFAT funding may need to be re-calibrated to reflect expected take-up by PWD Divisions.

ADDITIONAL NOTES

i. **Unrealistic?** Would the proposal place unrealistic expectations on PWD's capacity to plan and deliver a works program? If it does, then a decade plus of external support[29] to PWD has not succeeded; *ergo*, the approach should change.
ii. **Paris Declaration principles**: The proposal incorporates important Paris Declaration principles, including: a) working in partner systems; b) doing no harm; c) taking a demand-based approach; d) and using beneficiary self-selection. R4D support would probably be over-weighted to the two or three strongest Divisions initially, and these may not be the Divisions R4D currently supports. This is normal for demand-driven aid delivery. But over-time, other provinces will increasingly demonstrate their demand and start benefiting also[30]. Limits can be set for the maximum aid any single Division can win.

[29] The Japan International Cooperation Agency, the European Union, the US Millennium Challenge Account, and VTSSP 1 worked with PWD since 2000 on managing and improving Vanuatu's road network, including physical works and capacity building.

[30] And there may be surprises. For instance Torba province is taking the initiative to overcome road network problems.

iii. **Risks:** The proposal carries risks that would have to be assessed and mitigated by PWD and R4D, including: a) difficult in-field logistics[31]; b) some islands will have no IBCs, and existing IBCs will decline and would eventually fail if not contracted by PWD; c) off-island IBCs may have difficulty working in some locations; and d) some PWD Divisions will have insufficient site supervision capacity[32].

iv. **Program documents**: This proposal is not consistent with the PDD, the ISP's terms of reference, and the VTSSP II Direct Funding Arrangement.

[31] This will include transportation for supervision engineers/foremen, since there will be no R4D-dedicated vehicle on any island.

[32] R4D supervision engineers would not do the job of site inspectors. Supervision engineers would play a mainly a due diligence and capacity building role.

3. About capacity development

The analysis in this section addresses PWD 'capacity', not the broader topic of 'performance'. DFAT's Evaluation Capacity Building (ECB) program Key Concept 6 differentiates between capacity and performance; improving capacity is one aspect only of improving performance, which is about behaviour change. The VTSSP2 PDD characterizes PWD's institutional 'transformation' in terms of better skills, systems and resources – not 'performance', *per se*.

Question 3.1 below addresses **skills**. Question 3.2 addresses one of PWD's most important systems, public expenditure management.

The broader question of PWD performance is addressed in Section 6: Progress against end-of-program outcomes.

Questions 3.1 and 3.2 assume that R4D's PWD institutional transformation component remains relevant – that helping MIPU-PWD build the skills, systems, and resources necessary to plan and manage its core service delivery mandate is the right thing to do. The interim review found nothing that would contest the relevance of R4D's PWD capacity development support. A later independent evaluation will test this assumption when it evaluates overall Program relevance.

3.1 How effectively does R4D's capacity development support target PWD's human resources challenges most critical to the delivery of road management services?

3.1.1 Background

R4D's skills subcomponent aims to help PWD develop and manage its human resources (HR). Although not directly relevant to the question, it is noteworthy that R4D has been instrumental in greatly reducing PWD's staff vacancy rate. And the discussion in 3.2 will describe R4D's significant contribution to improving key systems and processes in MIPU-PWD.

3.1.2 Current situation

R4D delivers HR capacity building according to a detailed annual work plan, which supports MIPU-PWD's HR Development Strategy and is prepared and agreed consultatively with managers and staff. R4D's planning and delivery is managed by an experienced specialist who is exceptionally familiar with MIPU-PWD operations, systems and personnel.

The design and delivery of the 2014 HR capacity building plan ranges across the following categories (note that not all the activities are funded by R4D):

i. **Technical assistance (TA) support**, comprising: a) TA visits to Divisions to conduct training needs assessments and performance management reviews (PMRs); b) fraud and risk training; c) Australian Volunteers for International development (AVID) mobilised for information and communications technology (ICT) training; d) filing and archiving AVID; and e) code of ethic training: 5 sets[33] of activities @ A$5,400 equivalent = 5.4% of the CB program budget.
ii. **Talent acquisition**, comprising: a) Work attachments and short courses in New Zealand (no cost to R4D); b) Youth Challenge placements (not used); c) industrial attachment program for university graduates and undergraduates; d) Rural Training Centre (RTC) placements; and e) private sector work placements for PWD technicians (no cost to R4D): 5 sets of activities @ A$3,200 equivalent = 3.2% of the CB program budget.
iii. **Training for 25 SIs and 25 IBC representatives**: Undertaken in three provinces @ A$14,200 = 14.2% of the CB program budget.

[33] Each set comprises multiple individual activities, for instance, multiple visits to Divisions.

iv. **Study tours**: Seven MIPU-PWD senior staff tour to the Solomon Islands (Tonga study tour reprogrammed to 2015 or 2016): @ A$11,100 = 11.1% of the CB program budget.
v. **Management, supervision, fleet operations/artisanal & administration education and training**: a) Diploma in Management through the Australian-Pacific Technical College (APTC) for seven PWD senior staff; b) several other part-time studies for PWD technical staff not funded by R4D; and c) short technical training courses offered to PWD technical staff, based on PMR findings, covering supervision, procurement and stock control, and administration. @ A$60,800 = 60.8% of the CB program budget.
vi. Total CB program budget = A$100,000 equivalent.

PWD is severely challenged to deliver its basic road network management and maintenance mandate. The 2014 HR capacity building plan has been questioned for being too demanding of PWD staff time[34]; and for an over-emphasis on corporate management excellence, whereas the most pressing needs are for directly relevant road maintenance training, systems development and performance management.

In August 2014, DFAT commented to R4D that most CB activities in the plan are highly relevant and they target service delivery, but that some activities are less relevant or less pressing. Physical works service delivery[35] and financial management[36] should be the highest priority corporate key results areas (KRAs) for PWD as it strives to anchor a transport sector program-based approach (PBA) that development partners are willing to support. DFAT commented the following activities in the Plan are less important and/or less urgent and/or are excessive:

i. **Ethics training:** Ethics training should only be required once each year, not twice.
ii. **Youth Challenge**: This is a worthy program but since it will need financing from R4D and the attached youth are likely to have basic administrative roles only, it is not high priority.
iii. **Study tours**: PWD managers toured Solomon Islands in February 2014. Given other training, learning and conference demands on PWD managers, only one such regional study tour each year should be financed.
iv. **Post Graduate Diploma in Public Service Management**: Given other training and learning demands on PWD senior staff and the need to focus on service delivery and public financial management, this does not seem a priority activity. This is a different course to the Diploma in Management (see v. below).
v. **Management courses available in Port Vila**: The Plan does not propose that all courses be taken. It lists the courses for information and further consideration by MIPU/PWD management. Eight (8) DPW senior staff took the Diploma in Management course in 2014. The course required 35 days face-to-face training, plus assignments. This leaves little headroom for further management training.
vi. **Supervision Blocks I & II**: The free training offered by PSC through the Vanuatu Institute of Public Administration & Management (VIPAM) would be useful, but considering PWD's service delivery challenges and the need for technical CB, the VIPAM training should be deferred.

DFAT commented that certain activities in the plan could be made more relevant to PWD functional core competencies:

i. **Workplace attachment in New Zealand PWD or equivalent**: Ensure that the engineering areas and levels match the required competencies of participating PWD technical staff. For instance, no position in PWD should be require 'advanced bitumen' competencies;

[34] The R4D July-September 2014 quarterly report noted this same point.
[35] Including outsourcing and force account methods.
[36] Also including procurement and contract management.

principal and senior engineers need competencies in planning, scoping, procurement and contract management, not advanced technical skills in areas such as surveying.

ii. **Water supply system training in Japan**: This training should be carefully scrutinised to ensure it builds competencies most relevant to the Water Unit's functions and challenges. Water quality and water system design would be less relevant than, say, water loss reduction/demand management.

iii. **Supporting a results driven organisation (administration staff)**: PWD's service delivery challenges are too basic for the nuances of this training on results-based administration to have much impact. Administration staff training should reinforce core competencies.

Overall, the R4D's HR capacity building support is well-considered and beneficial. But it was too 'busy' and demanding of senior staff, and partly it was pitched at levels that would yield longer-term benefits, whereas PWD faces immediate service delivery pressures.

3.1.3 Factors leading to this situation

R4D's 2014 HR capacity building plan followed closely the direction in the VTSSP II PDD and the ISP contract terms of reference. The plan uses the budget categories listed in Table 20, page 64 of the PDD. The plan was guided by the PDD to consider the following:

i. Talent acquisition and retention.
ii. Greater access to training opportunities.
iii. Use updated Training Needs Analysis (TNA) and Skill Gap Audits to priorities skills gap areas in planning, management, administration and service delivery.
iv. Track progress and update the Plan using biannual Performance Management and Review Reports.
v. Be within the PDD's capacity building budget parameters.
vi. Be a targeted and well-delivered training program that helps retain staff and boost morale.
vii. Strengthen skills by using on-the-job training, workshops and seminars conducted by ISP specialists, external training (as appropriate), and development and implementation of standard procedures and codes of practice.

R4D and MIPU-PWD deliberated on the shape of the HR capacity building plan and agreed the activities. The theme of MIPU's 2014-16 Corporate Plan was '*Stretem kitchen faestain*' ('Get our house in order first'), meaning that MIPU-PWD's corporate operations should be strengthened first. The 2014 HR capacity building plan was also influenced by handover documents that reported significant technical training having already been delivered to engineers, foremen, SIs and IBCs in the provinces.

In a setting like Vanuatu, work planning needed to be somewhat opportunistic. The Diploma in Management course was seen as an excellent opportunity, but it demanded at least 35 days face-to-face time and also a minimum number of participants.

The shape of the capacity development program also reflects the R4D HRD adviser's detailed knowledge and understanding of MIPU-PWD and her enthusiasm for supporting senior management and improving corporate culture.

3.1.4 Implications for program success

R4D HR capacity building support is undoubtedly helping MIPU-PWD build skills and competencies necessary to plan and manage its core service delivery mandate. But with its emphasis on building 'corporate' capacity, there has been less work on some critical skills and competency gaps, notably Division-level engineering design and scoping, and contract management and supervision.

These skills gaps will impede PWD's transition to an outsourcing model for road civil works and maintenance services. The gaps will also perpetuate PWD's inefficient use of its force account resources.

R4D's management capacity building has been broad. But PWD's critical management gap is specifically in performance management. The R4D HRD adviser has worked hard over several years with MIPU's Executive to introduce GoV's best performance management system to the Ministry. Now intense and sustained performance management capacity building is needed to inculcate a performance management culture among managers. Performance management is critically important to service delivery and therefore central to R4D success.

3.1.5 Response thus far and going forward

R4D's draft 2015 HR capacity building work plan rebalances R4D support to focus sharply on PWD's core service delivery mandate. This was already in train when DFAT commented on the 2014 plan in August, and R4D has been responsive since then. MIPU's latest Corporate Plan (prepared in April 2014 for 2015-17) is themed *'Yumi lukluk aotsaed'* (We must extend our attention to the Divisions'). PWD management directed that the following principles apply to the PWD 2015 capacity building program:

i. **Focus on PWD's core business**: sustainable road maintenance.
ii. **Keep it real and achievable**: plan and deliver within the existing resource framework.
iii. **Consolidate**: coordinate and make better use of existing resources.
iv. **Improve performance**: in the use of existing resources and systems.
v. **Focus training on service delivery**: train in works planning, scoping, procurement, contract management and supervision.
vi. **Improve performance management and accountability**: more frequent one-on-one management by video and utilise new Management Information System dashboard.

The draft 2015 HR capacity building plan retains the PDD budget categories (see Section 3.1.2) but rebalances the support in favour of technical training. Many proposed activities would be funded by PWD and other development partners. The allocation of training opportunities will be more closely linked to PMR results – good performance will be rewarded with training opportunities. The plan, again, looks very 'busy'; R4D should calculate the 'time-away-from-job' cost of implementing the plan, and present it to PWD management to further consider.

RECOMMENDATIONS going forward:

i. **Absence from work:** R4D should calculate the 'time-away-from-job' cost of implementing the 2015 HR capacity building plan, and present it to PWD management to further consider.
ii. **Staying on-track**: R4D should help PWD Management closely monitor the implementation of the plan to ensure that it really does meet PWD's directives (see above).
iii. **Expressed demand**: R4D should help PWD Management closely monitor staff responses to the support offered, which may need to be recalibrated according to the expressed demand.
iv. **Performance management**: R4D should help PWD focus its management-level capacity building on performance management.
v. **Human resources development (HRD) specialist**: The incumbent recently resigned. R4D should help PWD examine what would be the most efficient and effective capacity development TA to provide going forward. After 5 years of HRD, it may be time to provide more advanced capacity development TA. It is definitely time to improve specialist-

counterpart arrangements within MIPU-PWD in this area.[37] An effective counterpart arrangement should be a precondition of further R4D HRD/capacity development support.

3.2 How effectively does R4D's capacity development support target institutional impediments to sound public expenditure management?

3.2.1 Background

R4D's institutional capacity development component covers: a) functions; b) systems; and c) skills. The 'systems' subcomponent includes public financial management and procurement, among others. All organisations need to manage their financial planning, budgeting, procurement, expenditure and reporting well. The case for PWD to strengthen its financial management and procurement is especially strong. Public works departments worldwide typically spend large sums. The nature of that spending exposes them to fraud and corruption. The nature of the works can also challenge value-for-money outcomes. Effective financial management and procurement is essential.

Additionally for GoV's PWD, sound financial management is crucial for improving public expenditure management (PEM). Every year, political-economy influences result in wide disparities between approved works budgets and expenditure outcomes. Strong financial management systems and processes cannot stop money being diverted, but they increase transparency and political accountability.

3.2.2 Current situation

Public financial management (PFM): R4D provides a full-time, long-term PFM specialist to help PWD manage fiduciary risks to Government of Australia (GoA) funds flowing through MIPU-GoV financial systems. The PFM specialist also helps build MIPU-PWD corporate capacity to do the following:

i. Develop and sustain evidence-based budgets that are in line with PWD's operational structure and functions, and to ensure these budgets meet GoV planning, reporting and formatting requirements.
ii. Develop internal accounting procedures for GoV funds that support proper costing and allocation of these costs.
iii. Develop internal routine and periodic reporting and audit routines and procedures that provide professional management reports in a timely and accurate way.
iv. Use and interpret financial systems and procedures so as to improve MIPU-PWD funding utilisation through improved planning, accountability and transparency.
v. Implement the recommendations of GoV audits and joint GoV/GoA fiduciary risk assessments.

Actual contributions since the start of R4D include:

i. The introduction of job codes for road maintenance activities. R4D is refining and expanding the codes to progressively make them more representative of PWD's range of programs/activities.

[37] The specialist has been highly effective, but after five years with MIPU-PWD she was playing a staff-like role that was broader than her R4D ToR. Although of great value to MIPU-PWD Management, the arrangement was unsustainable. Latterly, the specialist did not have an effective one-on-one counterpart relationship and she leaves a MIPU-PWD that has very limited HRD capacity.

ii. R4D helped overhaul MIPU's budget submission to align it to the requirements outlined in the Department of Finance and Treasury (DoFT) budget circular. This will need to happen for several budget cycles to come.
iii. R4D helped develop new financial reports on the DoFT reporting system (Vision) to support the introduction of job codes for the monitoring of expenditure.
iv. Helped develop PFM elements for the new PWD Management Information System.
v. Updated processes and procedures to improve the quality of inventory control in the provinces
vi. Developing (ongoing) a suite of reports for monthly PWD-MIPU financial management meetings.

Procurement: Procurement is an area of high fiduciary risk in any public works agency. R4D provides a full-time, long-term international procurement specialist to help PWD manage this fiduciary risk. The specialist is also expected to help MIPU-PWD develop their procurement capacity. The specialist achieves this by doing the following:

i. Assist in the preparation of an annual R4D Procurement Plan indicating major procurements (over VT 5,000,000) to be undertaken in the next financial year.
ii. Participate in the planning and tender (or other competitive) process for each acquisition greater than VUV1,000,000 and make recommendations of a technical a procedural nature such as on procurement method and compliance with Partner Government procedures.
iii. Provide the GoV procurement delegate with a recommendation regarding whether to proceed with any acquisition exceeding this value, including whether the procurement outcome represents value for money. The recommendation is intended to support the delegate's decision rather than to be determinative.
iv. Develop MIPU-PWD staff capacity in procurement.
v. Provide value for money assessments of major procurements and processes.
vi. Review small-scale procurement practices and provide advice for improvement as required.
vii. Review existing procurement process and recommend improvements.
viii. Develop an R4D Procurement Manual aligned with GoV rules, procedures and legislation.

R4D also continues earlier Australian-funded support for PWD's talent acquisition program (see Section 3.1). Many PWD staff vacancies have been filled, notably in the PFM and Procurement unit, which is now well led. MIPU-PWD is now generally acknowledged as having GoV's strongest and best performing PFM and procurement function.

3.2.3 Factors leading to this situation

R4D's PFM and procurement capacity development support is implemented according to the PDD, the ISP terms of reference, and the VTSSP II Direct Funding Arrangement. The program design was well-considered; the specialists performed well; and most importantly, PWD acquired the necessary staff talent to effectively absorb the external support and carry on.

3.2.4 Implications for program success

Effective PEM support is essential to achieve R4D's first end-of-program outcome: *The Public Works Department (PWD) strategic framework is guiding management and operational decision-making.*

R4D and PWD have not articulated a 'strategic framework', as such (see 3.2.5 below), but the systems and process gains from R4D's PEM support directly add to MIPU-PWD's management and operational decision-making capacity. This is positive for program success.

3.2.5 Response thus far and going forward

Both the PFM specialist and the procurement specialist will soon leave R4D. The ISP, PWD and DFAT are working together on a succession plan that locks in and continues the gains so far; that mitigates dependency risks for PWD; and that maximises value-for-money. R4D's PEM support so far has been effective. It incrementally improves systems, processes, and competencies and is calibrated to match MIPU-PWD's capacity to absorb and build on the support.

RECOMMENDATIONS going forward:

i. **Continue**: R4D's PEM support should continue to incrementally build MIPU-PWD capacity.
ii. **Strategic context**: R4D should set its PEM support within a broader reform and capacity development strategic context. R4D and PWD are working on this.
iii. **Review current delivery arrangements**: R4D should review the new PFM and procurement TA arrangements no later than June 2015 and recommend any changes. For instance, is a combination of part-time home-office and in-country PFM inputs from the international adviser effective, efficient, and achieving value-for-money?

4. About gender equality, and social and environmental safeguards

IBCs are the focus of this safeguards review. Safeguards risks are highest in physical works, and IBCs typically have a low knowledge base and regard for safeguards. Almost 51% of R4D's total physical works expenditure is for IBCs undertaking spot improvements (new concrete runways, structures, spot pavement works). IBCs also currently do most R4D-funded road maintenance (see Subsection 2.1.2).

IBCs were an initiative under VTSSP I. An IBC is a small-scale contractor, typically local to the island and area in which s/he works. VTSSP I invited local sole traders and others interested to be trained and registered as IBCs for the purpose of carrying out small-scale civil works and labour-based road maintenance work. Contracts are Australian-funded but are between PWD and the IBC. VTSSP I invested in IBCs to fill a gap in the islands. There were no existing pools of local contractors who were suitably skilled, reliable and efficient enough to undertake PWD-R4D road works and maintenance. Most IBC owners had little 'formal economy' experience and VTSSP I worked hard with them to build basic technical and business skills.

The VTSSP II PDD carried forward the IBC initiative, with little change. After just two years of contracting experience, it was felt that IBCs required more nurturing. So as well as more training and mentoring, R4D continued the practice of lending or gifting hand-tools to IBCs, of providing ample mobilisation and advance payments, offering contracts rather than competitively tendering them, and leasing light mechanical equipment to IBCs (R4D-financed tools and equipment are owned by PWD).

The longer-term objective is for the better IBCs to develop into sustainable, diversified civil works and construction businesses capable of competitively tendering for and delivering PWD and other contracts across the country.

The IR poses one overall question about gender equality, and social and environmental safeguards: **How effectively do IBCs manage safeguards?** This is broken into 3 sub-questions, 4.1, 4.2 and 4.3.

4.1 To what extent are IBCs providing equal employment opportunities to local women on R4D-funded road works?

4.1.1 Background

All IBCs have been trained and mentored by R4D specialists, RMEs and PWD environmental and social officers in social and environmental safeguards. R4D's September 2014 IBC Tracer Study reported that 42% of all IBCs answered YES to: *'Are you aware of DFAT's Gender, Disability and Child Protection Policies?'*

The information for the following analysis comes from: a) R4D's September 2014 IBC Tracer Study Report; b) R4D progress reports; and c) observations in the field.

4.1.2 Current situation

IBC Tracer Study: The IBC tracer study reported that approximately 20% of IBCs' work-force is female. There was no further breakdown, for instance, as between community group labour and more regular skilled workers; although the report noted that most female employees tend to be family members of the IBC owner.

R4D Monthly Contract Status Report: All IBC contracts require the IBC to keep employment records: *'Contractors shall keep full, complete, and accurate daily records of the employment of labour (workers employed) at the work site (Muster Rolls). These records shall include the name, age, gender and home village. These records shall be available for inspection at all reasonable times.'* (Clause 3.8) SIs are required to collect and collate the Muster Rolls, and hand the information on the RMEs. The RMEs include employment data in their monthly physical works Contract Status Report. The data are then presented in the consolidated R4D Monthly Contract

Status Report. From March to November 2014, across all sites, R4D-funded contracts yielded 5,251 (18.5%) female worker days and 23,151 (81.5%) male worker days. Patterns are hard to detect. The data suggest that female worker opportunities are lower on Ambae and higher on Malekula. Only Tanna IBCs seem to employ women on structure construction contracts. Labour opportunities for women on Malekula are mostly for routine maintenance. Moreover, it seems that opportunities for women have decreased since July-August, especially on Ambae and Malekula. Surprisingly, no female worker days were reported for the drainage structure contract on Pentecost used for the IBC and SI training program (630 male worker days recorded). The data quality is likely to vary since it is collected and passed on by SIs.

DFAT field observations: DFAT's Port Vila infrastructure adviser interviewed IBC owners and workers on Tanna, Malekula and Ambae during monitoring visits in August and October 2014. The following summarises the findings relating to equal employment opportunities for women:

i. IBCs were unclear on the gender mix of their unskilled workers doing light routine maintenance, including community group workers. One IBC said that around half his routine maintenance workers were women; but no work crew sighted comprised 50% women.
ii. As observed on many sites across the islands, there are very few women working on structures.

Equal employment opportunities vary significantly from area-to-area and amongst IBCs, but it appears that there is more equality of opportunity on labour-based, light routine maintenance jobs (e.g. grass cutting, clearing drains, and the like) but little opportunity for women to work on the construction of structures.

The VTSSP II PDD did not set specific gender equality targets and indicators. There was no clear expectation around gender equality going into R4D. Nevertheless, the review is of the view that overall gender equality on IBC-implemented works is low and needs to increase.

4.1.3 Factors leading to this situation

It is puzzling why female worker participation has declined since July-August. In response to the initial findings of the Tracer Study, R4D delivered a week of refresher training to all IBCs in four locations during August and September. The training covered gender. The decline may relate to the changing nature of R4D-funded works. There is now more structure construction. IBCs shy away from using female workers on construction jobs.

Despite refresher training, there may still be limited genuine awareness of – and commitment to – gender equality amongst IBCs.

IBCs have little influence over the composition of community group labour. Community leaders mostly determine participation and may favour men.

Finally, SIs are not closely managing their IBC contracts. Contract Clause 3.5.2 is not being enforced.

4.1.4 Implications for program success

There are no gender equality performance targets in the PDD, the ISP contract, or the DFA; and there are no specific gender equality end-of-program outcomes.

Nevertheless, compliance with DFAT and partner government safeguards policies is fundamental to any program success, and failure to achieve compliance *will* be revealed.

Female worker participation needs to increase.

4.1.5 Response thus far and going forward

R4D delivered refresher training to all IBCs and SIs after the initial IBC Tracer Study results came out. Training for new IBCs and SIs on Pentecost covered gender equality (but no women were reported to have worked on the training construction site!).

SIs are day-to-day responsible for IBC contract management and construction supervision. SIs under-perform. They are not well-managed by Divisional engineers and foremen and are not subject to any meaningful performance-based rewards and sanctions.

The R4D and PWD recently submitted the final version of the joint Social Safeguards Framework. DFAT Post and Canberra quality assured the Framework and it is now a high standard, fit-for-purpose document. The Framework comprehensively covers gender equality. The Framework's implementation plan includes a detailed field-level awareness and training program, including on gender equality. R4D will now produce safeguards manuals or 'toolkits' customised for in-field use by IBCs, SIs and others.

RECOMMENDATIONS going forward:

i. **Continue IBC training**: The ISP understands that having IBCs genuinely commit to gender equality requires repeated training and messaging. DFAT should encourage and support ISP proposals for continued IBC training and the production of manuals and toolkits (see above).
ii. **Site inspector performance**: PWD divisions should performance-manage SIs. Ultimately, a different contract management and construction supervision arrangement is required (see Section 2.3).
iii. **RME performance**: RMEs need also to be performance-managed on this issue by the ISP. How is it that not a single female worker day is recorded for Ambae since July?
iv. **Contract incentives**: The standard PWD IBC contract contains no sanctions or rewards for performance of subsection 3.5.2. Imposing sanctions is unlikely to work because of poor contract supervision. Rewards may work – an additional payment increment for achieving agreed gender equality benchmarks. There is a rich international literature on this issue. The ISP should propose amendments to the General and/or Specific Conditions of Contract to institute rewards for IBCs to increase worker participation opportunities for women.

4.2 To what extent are IBCs protecting their workers from workplace health and safety risks?

4.2.1 Background

This question is included because DFAT field observations suggest there is a problem; and because Australia faces a high reputational risk over the safety of workers employed on DFAT-funded aid programs. IBCs employ hundreds of workers across the R4D-funded works portfolio and the nature of work puts them at risk of injury or illness[38].

Routine maintenance worker are at risk from passing vehicle traffic, from using grass cutting and other hand tools, from using light mechanical equipment, and from prolonged exposure in hot weather and dust.

[38] WHS issues on R4D-funded EHC, NC and force account works are not examined since EHCs and NCs are only now being procured. There are very few R4D-funded force account activities and risks to plant operators is minimal. But these will be important areas of inquiry going forward.

Workers constructing structures are at risk from passing traffic, from working in excavations and confined spaces, working with light mechanical equipment, working in close proximity to heavy plant and equipment, and from prolonged exposure in hot weather.

4.2.2 Current situation

Program monitoring: There is little information on IBC WHS practices. The IBC Tracer Study asked no question on WHS. IBC contracts contain no general conditions relating to workplace health and safety (WHS). R4D does not track or systematically report on IBC workplace health and safety practice in the field.

DFAT field observations: DFAT Post observed the following during monitoring visits:

i. Work sites are generally well identified with warning and advisory signs.
ii. Few IBCs workers wear high visibility garments. IBC workers using motorised brush cutters generally do not wear protective eye wear or earmuffs.
iii. Few IBC workers wear protective footwear. Most workers on structures wear only flip flops or have bare feet.
iv. No IBC workers wear hard hats, including those working in excavations, with scaffolding, and overhead equipment.
v. No first aid kits were sighted.
vi. Drinking water seems to be left up to each individual worker to provide.
vii. Dust is not supressed and dust protection gear (including masks) is not provided.

Additional comments:

i. Currently, most structural work is located on low volume, low speed roads. Passing vehicles pose only a low risk to workers.
ii. Most labour-based routine maintenance (including grass cutting and clearing of drains) occurs on fully rehabilitated VTSSP 1 roads. Some sections have comfortable 60+ kph travel speeds and passing vehicles pose a moderate to high risk to workers. In addition, these sites are the least well sign posted, if at all.
iii. There are some chest-high (culverts) and overhead (large drifts in gullies) excavations, without shoring and without workers wearing appropriate safety gear.

Overall, WHS standards being practised by IBCs do **not** adequately protect workers from WHS risks.

4.2.3 Factors leading to this situation

The overriding factor leading to this situation is local custom and practice. Mitigating WHS risks – especially through 'foreign' means – is an unknown concept in rural, outer island locations. Only some IBC owners have any construction experience, and none have civil works experience. Many IBC owners and most workers have little formal employment experience. Workers dress and behave how they normally do in their gardens and farms.

VTSSP I knew this and all IBCs and SIs were trained in WHS as part of their preparation. All were refresher-trained in August-September 2014 under R4D. Nevertheless, changing knowledge, attitudes and practices takes more than two trainings over 3 years.

VTSSP I and R4D issued safety gear to IBC owners, who presumably make the gear available to workers. This doesn't guarantee the gear will actually be worn and used. There is anecdotal evidence that high value safety gear (e.g. safety boots) is deliberately not worn in order to preserve its value for personal use. Most important, safety gear can be hot and uncomfortable to wear for people not used to it and working in tropical conditions.

PWD personnel, including foremen and SIs, have all been trained in WHS. They are responsible for supervising IBCs. Although there are no WHS provisions in IBC contracts, they know what basic

WHS practices are expected of IBCs. SIs seem not to be encouraging and helping IBCs protect the health and safety of their workers.

4.2.4 Implications for program success

Substandard WHS practices threaten the health and safety of people working on Australian-funded works. This has implications for program success, if not end-of-program outcomes. Substandard WHS practices will be revealed and reported by external evaluators. Evaluated program performance will be affected. Most important, the reputation of R4D and the broader Australia-Vanuatu aid program will be damaged if substandard WHS practices contribute to or are responsible for a worker(s) being seriously injured.

4.2.5 Response thus far and going forward

R4D continues to train IBCs and SIs (see Subsection 4.2.3). The R4D-PWD Social Safeguards Framework (see Subsection 3.1.5) covers WHS and the implementation plan includes further training and awareness, and the preparation of safeguards field manuals and toolkits.

However, more effective supervision of IBCs by PWD foremen and SIs is the key to improving site WHS practices. R4D's current implementation approach is unlikely to achieve this.

RECOMMENDATIONS going forward:

i. **Continue IBC training**: The ISP understands that having IBCs genuinely commit to better WHS practices requires repeated training and messaging. DFAT should encourage and support ISP proposals for continued IBC training and the production of manuals and toolkits.
ii. **SI performance**: R4D should encourage PWD divisions to performance-manage SIs. This would probably require changes to sanctions and rewards and hence changes to how R4D delivers support.
iii. **RME performance**: RMEs need also to be performance-managed on this issue by the ISP. Local customs and conditions do not abrogate RMEs of their safeguards responsibilities. RMEs' monthly progress reports [submitted separately or through the PWD management information system (MIS)] should always include a section on WHS compliance and issues, whether or not there is anything to report.
iv. **MIS dashboard**: R4D is helping PWD build its MIS. R4D should encourage PWD to endorse the inclusion of WHS reporting as part of the MIS dashboard.
v. **Contract incentives**: The ISP should propose amendments to the General and/or Specific Conditions Contract to institute rewards for IBCs to improve WHS field practices.

4.3 To what extent are IBCs meeting reasonable environmental management standards?

4.3.1 Background

This question relates only to the building of structures. IBC routine maintenance works have small to negligible environmental impacts only and are not a concern. Again, IBCs are the focus of inquiry because to-date they have done most of the works[39].

[39] Environmental issues on R4D-funded EHC, NC and force account works are not examined since EHCs and NCs are only now being procured; and there are very few R4D-funded force account activities. But these will be important areas of inquiry going forward. Quarrying practices should be closely examined.

Structures built and installed by IBCs include: drainage culverts; dry and wet creek crossings – concrete drifts; lined longitudinal drains; concrete runways on steep road sections; and bridge and other repairs. The work variously involves: excavations; formwork and reinforced concreting; stone masonry; installation of pre-cast concrete pipes, galvanised iron pipes, and other products; and some limited timber and steel work.

4.3.2 Current situation

Program monitoring: There is little information on IBC environmental management practices. The IBC Tracer Study asked no question on environmental management. Environmental management plans (EMPs) are not required for IBC works. IBC contracts contain no general conditions relating to environmental management. R4D does not track or systematically report on IBC environmental management practices in the field.

PWD does not track or report on environmental management for road works on existing roads[40].

DFAT field observations (for structures only): DFAT's DC team in Port Vila observed the following during monitoring visits:

i. Most structures are small and pose small or negligible environmental impact risks. However, there are exceptions.
ii. There are several larger works involving deep excavations (e.g. between Lolopope and Loloaru, north Ambae – this work is now complete) and these are typically located in steep gullies subject to flash flooding. Building concrete drifts in steep gullies usually involves some amount of excavation, essentially within the water course.
iii. The Vao bridge repair involved crude diversion works and a temporary earth crossing which pose a downstream environmental risk (this may have since been cleared).
iv. Poorly designed and constructed drifts have the potential to impede water flow. Several VTSSP I drifts on Malekula were constructed too high and are backing up the creeks behind them.

4.3.3 Factors leading to this situation

At design, IBCs were expected to undertake mostly minor capital works within existing road alignments with only minor environmental impacts; and routine maintenance was expected to have essentially nil environmental impacts[41]. Hence, IBC operating procedures and documentation do not include EMPs and environmental management contract provisions. The R4D physical works team is not familiar with GoV environmental management rules and regulations.

However, as observed, some IBC works pose minor to moderate environmental risks, mostly associated with impacts on watercourses and downstream areas. It is also possible for IBC works to disturb '*tabu*' sites of cultural significance to locals.

Although not covered in the Tracer study, it is likely than IBC owners and foremen have little knowledge of GoV environmental rules and regulations, and little civil works environmental impact mitigation experience. The situation is likely to be similar to WHS – IBC training covered environmental management but retained knowledge is low.

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[40] Under Vanuatu's Environmental Protection and Conservation Act, the Director of DEPC is authorised to conduct Preliminary Environmental Assessments (PEAs). Director of DEPC can delegate this authority, which he has done for PWD's DMs and Engineers and the two environmental officers. PWD currently only conducts PEAs for new roads, not for works on existing roads. PWD also conducts PEAs on quarries, focusing on rehabilitation of quarry sites.

[41] VTSSP II PDD, Annex 8. Note, however, that Annex 8 includes an 'Environmental Screening Checklist' for physical works, covering design, construction, and O&M.

PWD personnel, including foremen and SIs, have all been trained in environmental management of road works. They are responsible for supervising IBCs. Although there are no environmental management provisions in IBC contracts, they know what basic environmental management practices are expected of IBCs. SIs seem not to be encouraging and helping IBCs identify, assess, and protect against environmental damage. PWD has only two environmental officers on staff (covering also social safeguards and community partnering); they are heavily committed and spend little time in the field helping Divisions with environmental management operations.

4.3.4 Implications for program success

Implications for program success are proportional to environmental risks posed, which are few and minor-to-moderate. There have been no significant wash-outs or other damaging events to-date on R4D-financed works. The reviewer is unaware of any local discontent or concern over environmental impacts of R4D-financed works.

Environmental risks from IBC civil works could increase, however, as spot improvements extend into more difficult terrain with frequent watercourse crossings in steep gullies, for instance, the south-west road on Ambae.

4.3.5 Response thus far and going forward

It is left to RMEs to assess and mitigate environmental risks associated with IBC works. Excavations in watercourses are timed to avoid the worst of the local wet weather.

IBC and SI refresher training covers environmental management. The R4D-PWD Social Safeguards Framework (Section 4.5) covers environment and climate change adaptation and the implementation plan includes further training and awareness, and the preparation of safeguards field manuals and toolkits.

PWD is drafting a PWD Operations Environmental Guide for its operations staff in the Divisions. Progress is slow because the environmental officer in Head Office is heavily committed.

RECOMMENDATIONS going forward:

i. **Vanuatu Resilient Roads Manual**: The R4D-PWD Road Standards and Specifications Manual (currently titled: 'Vanuatu Resilient Roads Manual') should be supplemented to include environmental management guidelines for typical IBC works that carry minor-to-moderate environmental impact risks, principally civil works in watercourses and on steep and/or unstable ground. The Manual currently provides guidelines on mitigating environmental impacts of completed works, but not environmental risks during construction.
ii. **Social Safeguards Framework**: The R4D-PWD Social Safeguards Framework section 4.5 on Environment and Climate Change Adaptation should be re-written and expanded to provide practical guidance to field staff on managing environmental risks associated with typical rural road works. Currently, section 4.5 only provides background on GoV climate change adaptation initiatives and GoA support. It may be sufficient to summarise and cross reference what is in the Road Standards and Specifications Manual.
iii. **IBC training**: DFAT should encourage and support ISP proposals for continued IBC training and the production of manuals and toolkits to help IBCs and PWD field personnel recognise, assess, and mitigate environmental risks associated with typical IBC civil works.
iv. **Reporting**: RMEs' monthly progress reports (separate reports or through PWD's MIS) should always include a section on Environmental Management, whether or not there is anything to report.
v. **Operations Environment Guide**: R4D should consider providing technical assistance to help PWD write its Operations Environmental Guide.

5. About program management

5.1 How effective is strategic oversight and governance provided by the Project Steering Committee?

5.1.1 Background

The Program Design Document and the Direct Funding Arrangement (DFA) provide for an R4D-dedicated Project Steering Committee (PSC) to be established to 'ensure on-going consultation, planning, coordination and implementation of the Program.' The PSC was to convene every three months and would comprise representatives from: a) GoA; b) MIPU; c) the Ministry of Finance and Economic Management; d) the Office of the Prime Minister; and e) the Ministry of Foreign Affairs. The DFA gives further details[42].

5.1.2 Current situation

There is no dedicated PSC for R4D. In its place, the VPMU Steering Committee periodically considers R4D progress reports prepared by the ISP. This arrangement has the following drawbacks:

i. **Representation**: GoA is not represented on the VPMU PSC and the ISP is not always present when the PSC discusses R4D[43]. So DFAT positions on strategic matters may not be put directly to PSC members for consideration.
ii. **Influence**: GoA has limited direct influence over PSC decisions. A DFAT representative can attend the meetings but cannot vote on motions[44]. This is contrary to the VTSSP2 Direct Funding Agreement between GoA and GoV, which states that GoA will be represented on the Steering Committee (DFA para. 35).
iii. **Ownership and preparation**: The VPMU meets weekly and is responsible for the strategic guidance of four major projects (soon to be six) managed by the VPMU. PSC members are busy senior government officials and VPMU personnel are fully committed handling their mandated portfolio. The VPMU has no R4D mandate; VPMU merely tables the ISP's progress reports, and there is no separate briefing or preparation of PSC members on R4D matters. Since MIPU-PWD is R4D's executing agency, only they among the PSC members can be reasonably expected to 'own' R4D issues and outcomes.
iv. **Quality of submissions**: ISP written reporting to the PSC has varied and does not necessarily match the subjects the PSC is expected to consider (refer DFA clause 39). The ISP had been submitting monthly 'By-exception reports,' which are not tailored for the PSC – they are written for a PWD and DFAT audience. Recently, the ISP has submitted short weekly updates. DFAT does not quality assure this reporting. And weekly – or even monthly – reporting to any PSC is wasteful and distracting. It confuses the role of the governing body and buries strategic matters in amongst day-to-day operational matters.
v. **Quality of strategic oversight and guidance**: Given the above, it is difficult for the PSC to consistently provide high quality strategic oversight and governance to PWD, DFAT and the ISP. There were only two R4D-related substantive discussions during 2014, on the TIMF proposal and the 2014 annual work-plan (extending R4D support to Pentecost). The TIMF discussion was inconclusive.

[42] DFA clauses 33 to 44.
[43] The ISP attended one PSC meeting only in 2014, to present the Transport Infrastructure Management Fund proposal.
[44] Australian aid bilateral PSCs typically comprise just two voting members, one from each partner. There are at least five GoV voting members on the VPMU PSC.

vi. **Dissemination of PSC guidance**: The PSC provides no direct strategic oversight and guidance to the ISP because the PSC does not allow its minutes to be distributed to the ISP. Moreover, R4D items in PSC minutes are buried amongst VPMU matters.

The current PSC arrangement is not consistent with the Direct Funding Arrangement and is not optimal for providing effective strategic oversight and governance to R4D.

5.1.3 Factors leading to this situation

For the first six months of R4D, there was no R4D PSC meeting. When senior GoV officials were made aware, they proposed the current arrangement.

5.1.4 Implications for Program success

The current PSC arrangement poses a significant Program risk. At a minimum, it weakens the sense of 'partnership' that is at the core of good development assistance and is especially important for R4D.

High quality, evidence-based strategic guidance and governance from a PSC protect the interests of both partner governments. Good quality high-level guidance and governance give program managers confidence to make better operational and technical decisions that are politically, culturally, and institutionally savvy.

5.1.5 Response thus far and going forward

DFAT Port Vila recently proposed to the VPMU that its PSC meetings and agenda be rationalised; each weekly meeting be dedicated to one project only. This has been agreed by the PSC but it is untested. DFAT also proposed changes to improve the quality of project submissions to the PSC.

The Director General of MIPU recently instructed that R4D-related extracts of PSC minutes be given to the ISP. Not all PSC members endorsed this and it is unclear what will happen.

RECOMMENDATIONS going forward:

i. **An R4D PSC**: GoV and GoA should immediately re-establish an R4D-dedicated PSC as agreed in the DFA.
ii. **Fewer members**: GoV and GoA should negotiate to streamline the membership of the re-established PSC so that **regular** members include only representatives of (the) agency/ies directly and substantively involved in the delivery and success of the Program.
iii. **Secretariat support**: The ISP should provide secretariat services to the PSC, including the preparation of PSC agenda, papers, minutes and other support.
iv. **Meeting schedule**: The PSC should meet quarterly and each meeting should consider the ISP's Quarterly Progress Report for that period. Additional meetings may be called as required.
v. **Follow the DFA**: All other administrative arrangements agreed in the DFA should apply.

5.2 How effectively is R4D technical assistance internally vetted and quality assured?

5.2.1 Background

The ISP is providing significant technical assistance to MIPU-PWD, including corporate and sector strategic advice, proposals, and products. DFAT Port Vila is of the view that the quality of these outputs varies. DFAT interventions during 2014 resulted in significant changes being made to several outputs produced by ISP specialists.

5.2.2 Current situation

The ISP has no structured technical quality assurance or peer review system in place to support its R4D team in Vanuatu. This is despite the ISP being a large firm with a large projects portfolio across Asia and the Pacific covering all technical areas in R4D's scope. The firm has in-house and project-based experts in all these areas, and has strong experience in delivering results in these technical, financial and institutional areas.

The ISP's R4D team produced important outputs that would have benefited from peer review by home office, project-based or contracted specialists, including: a) human resources development plans and training modules; b) various road network management products, including the Road Design Standards and Specifications Manual, the Social Safeguards Framework, the Community Contracting Briefing Paper; c) public financial management systems and processes; d) other corporate management products, including PWD's management information system; e) transport sector reform products, including the Transport Infrastructure Management Facility (TIMF); f) legislation and implementation plans, including the Public Roads Act; and g) the Program M&E Plan.

Internal quality control falls to the ISP team leader, which is unrealistic for such a broad range of technical areas and large body of work.

5.2.3 Factors leading to this situation

No clear explanation was given to the reviewers.

5.2.4 Implications for Program success

The lack of a structured quality assurance/internal peer review regime poses a risk to Program success. Taken together, R4D TA outputs will greatly influence MIPU-PWD's institutional 'transformation' and service delivery performance. And some individual outputs, like TIMF, by themselves can significantly influence sector outcomes, depending on the quality of the advice and proposal.

5.2.5 Response thus far and going forward

RECOMMENDATIONS going forward:

i. **Identify QA inputs**: The ISP should include specific internal quality assurance/peer review actions in its 2015 Work Plan. It should identify what TA outputs will be peer reviewed, and by whom (by designations, not name).
ii. **Risk matrix**: The R4D Risk Matrix should be amended to reflect this.

6. Progress towards end-of-program outcomes

6.1 To what extent is R4D making progress towards end-of-program outcomes?

6.1.1 Background

The following analysis examines only 'outcome'-level Program results. It does **not** examine R4D's long-term Goal: *People in Vanuatu have increased access and derive economic benefit from a well-maintained, affordable and integrated road network*. It is too early to examine the impact of R4D on people and communities.

It is a preliminary assessment only, focusing on just a few areas that already look like being critical to Program success. The assessment is structured around the revised Program theory-of-change (ToC) agreed by stakeholders during the Inception Phase (page 14 of the VTSSP2 M&E Plan Version 4, April 2014). It steps down from the two OEPOs progressively through the prerequisite intermediate outcomes and outputs.

6.1.2 Current situation

EOPO 1 – *PWD's strategic framework is guiding management and operational decision-making*:

Strategic framework: The term 'Strategic framework' was introduced during the Inception Phase, but it was not defined. The interim review assumes that 'strategic framework' generally equates with the **PDD's Output 1.1: *Function – Core strategy, budgeting, policy, oversight, and service delivery functions***.

PWD does not yet have a 'strategic framework', as such. But R4D has helped PWD institute important contributing elements, notably:

- The Public Roads Act;
- Improved financial management and reporting;
- Improved procurement system and processes;
- PWD management information system;
- National road standards and specifications;
- A preliminary road condition monitoring system;
- National inventory and (draft) policy on the use of local road works materials.
- Social safeguards framework;
- Community contracting paper;
- Capacity building program (training, education, tours and conferences, mentoring);
- A policy commitment (not yet written and adopted) on outsourcing road works in preference to using force account.

R4D also produced high-level sector reform and organisational development analysis and recommendations, which are being considered by authorities[45]. For instance, yet there is no clear direction on PWD's core functional mandate.

Policy gap: The IR posits that a National (rural) roads accessibility policy is the most important missing element for a PWD (and road subsector) strategic framework. Please refer sections 2.1.5 and 2.2.5. Assuming that PWD's core mandate will increasingly focus on managing Vanuatu's national roads, a National roads accessibility policy is an essential prerequisite for enunciating and calibrating PWD function; and clearly specifying what levels of service PWD is expected to

[45] *The Road Ahead: A Strategic Planning and Policy Assessment of Vanuatu's Public Works Department* (Wayne Trappett, March 2013) is the most significant recent work on this.

deliver across the network, road-by-road. DFAT Port Vila recently initiated a policy dialog with PWD and R4D, but at the time of writing policy development had not started.

External environment: Consistent with DFAT's Evaluation Capacity Building (ECB) program Key Concept 6, it is necessary to examine PWD's external environment to see how it affects the organisation's performance. This links directly to EOPO 1 – even with a strategic framework in place, the political economy around road management can affect how closely resourcing and operational decisions actually follow the strategic framework.

Subsector studies and Program documents, including the PDD the M&E Plan, report significant external influence over road rehabilitation and maintenance decision-making. This is backed-up by anecdotal advice (e.g. footnote 26). The interim reviewers are not aware of any significant change in this external environment during the course of R4D.

EOPO 2 – PWD is managing and maintaining its road network to a high standard in a cost effective manner:

Little impact at Division-level: The headline message from section 2.3 is that R4D is having little impact on how PWD manages and maintains its road network because the R4D-PWD collaborative partnership breaks down at the Division level. The interim reviewers saw no evidence of Divisions genuinely committing to doing things differently – of operating more effectively and efficiently. There has likely been little progress towards this EOPO.

IBCs and community contracting: The R4D M&E ToC identifies competent IBCs and community contracting as prerequisite outputs for achieving EOPO 2. To-date, Divisions have not shown that they would use IBCs in a 'without Program' situation; and community contracting is only just being rolled-out.

6.1.3 Factors leading to this situation

EOPO 1 – PWD's strategic framework is guiding management and operational decision-making:

Appropriate incremental support: R4D has succeeded in helping PWD introduce important and wide-ranging incremental improvements in systems and processes. This improvement is calibrated to PWD's absorptive capacity and to management's appetite for change.

'Block-buster' reforms too ambitious: There has been little take-up of R4D's more ambitious sector and institutional reform proposals. The topics are complex, affect multiple stakeholders at many levels, are politically significant, and can be technically contentious. To-date, they have been beyond MIPU and GoV's absorptive and reactive capacity. For instance, MIPU has its own timeframe for the next internal re-organisation.

Policy gap was overlooked: None of the Program documents identify the need for a National roads accessibility policy. The PDD does not require it as an Output and the R4D M&E theory of change does not include it[46]. The PDD discusses the need to identify 'core' roads, which is part only of an accessibility policy (so too did the Wayne Trappett paper: footnote 45). GoV's own National and strategic planning agenda, and externally funded transport sector technical assistance all approach sector reform through an institution/organisation lens. But the real policy gap relates to the actual National road network.

Broader institutional environment: The interim reviewers can only speculate as to why PWD's external organisational environment is unchanged. A program like R4D – indeed, any outside

[46] The M&E ToC includes as an Output: 'Policy analysis and clarity to drive restructure'. This is about subsector and institutional reform policy, not roads accessibility policy.

program – can do little at this level, and certainly not within just the 20 months that R4D has been operating.

EOPO 2 – *PWD is managing and maintaining its road network to a high standard in a cost effective manner*:

Why so little collaboration: Section 2.3 explains why the collaborative partnership is breaking down at Division level, including why Divisions might be reluctant to use IBCs. The interim reviewers are of the view that DMs and their colleagues are responding quite naturally to the realities they face; R4D can only change this by changing the incentives around the way R4D support is delivered.

6.1.4 Implications for Program success

EOPO 1 – *PWD's strategic framework is guiding management and operational decision-making*:

Incremental improvements but still a Policy gap: The ready take-up by PWD of functional elements listed in section 6.1.1 augers well for Program success. But a National (rural) roads accessibility policy is the most critically important element. Without it, PWD will not have an effective 'strategic framework' for guiding decision-making.

Broader institutional environment: The institutional environment around PWD's road network management could threaten Program success around EOPO 1. PWD's service delivery performance has been and still is affected by outside influences, particularly in two respects: a) Part of PWD's road maintenance and repair National budget allocation each year is diverted to other uses; and b) PWD's annual work-plans for road maintenance and repairs are compromised by instructions from outside of PWD to redirect plant, operators and other resources to other tasks. A good quality National roads accessibility policy should mitigate these risks.

Many of the functional elements listed in section 6.1.1 will also mitigate political economy risks, particularly the progressive improvement of PWD's financial management systems and processes, which are increasing budgeting and expenditure management transparency and accountability.

EOPO 2 – *PWD is managing and maintaining its road network to a high standard in a cost effective manner*:

Success needs change: Section 2.3 explains how R4D's current road works implementation arrangements threaten Program success. The current supply-driven approach is having little influence over how PWD Divisions operate. It might look like the three participating Divisions are changing, for instance, contracting IBCs, outsourcing other works, and using SIs. But all this is driven by R4D support. The Divisions are not yet changing to become 'planning and oversight... (business units), with service delivery functions progressively outsourced.' (PDD para. 71)

6.1.5 Response thus far and going forward

EOPO 1 – *PWD's strategic framework is guiding management and operational decision-making*:

Policy: PWD and R4D are already discussing the need for a National (rural) roads accessibility policy. Managing core roads with an economic focus and non-core roads with an accessibility focus is consistent with Director, PWD's own views. R4D is mobilizing a road management specialist who will be able to help PWD with some of the policy development activities shown on page 10.

Please refer to section 2.1.5 for RECOMMENDATIONS relating to a National (rural) roads accessibility policy.

Performance: Organisational 'Performance' is not specifically mentioned in the revised R4D ToC and EOPO statement. But helping to improve MIPU-PWD performance is implied throughout the R4D documentation and it underpins the ToC Long-term PWD Outcome statement: *'PWD is providing appropriate road infrastructure in accordance with the broader GoV policy mandate and framework'*.

It is not possible for an external program like R4D to directly influence the broader institutional environment. But as improved systems and processes increase transparency and accountability, MIPU-PWD Management will be better equipped to protect their evidence-based decisions from outside interference. It is RECOMMENDED that R4D continue its current approach and level-of-effort in helping PWD incrementally strengthen systems, processes and competencies.

EOPO 2 – *PWD is managing and maintaining its road network to a high standard in a cost effective manner*:

Please refer to 2.3 for the Interim Review's recommendations for transitioning from a supply-driven to a demand-driven approach to delivering R4D physical works support.

7. Consolidated recommendations

7.1 For physical works

Type and location of road rehabilitation work: R4D and PWD road rehabilitation investment decisions lack policy guidance. R4D should help PWD develop a **National rural road accessibility policy** underpinned by agreed **level-of-service** standards. The following actions are recommended:

i. **A National rural roads accessibility policy**: R4D should immediately engage the MIPU-PWD on the benefits of a National rural road accessibility policy and should work with PWD to prepare a policy development plan.
ii. **R4D TA support**: Taking as an example the Policy development approach shown on page 10, R4D technical assistance could help PWD with: a) establishing a framework for PWD to document the road network (actual survey & data collection, data analysis, and data management could be outsourced locally); b) analyse and estimate unit costs; c) enunciate the guiding principles for GoV to consider; d) enunciate level-of-service descriptors and road classifications; e) quality assure the network classification process; and f) help write the Policy's programming and implementation guidelines.
iii. **Rehabilitation works consistent with the Policy**: Each year's roads rehabilitation program funded by R4D (together with PWD) should then be consistent with the level-of-service targets established in the National rural roads accessibility policy for each island's road network.
iv. **Heavy plant for the core**: PWD should be encouraged to concentrate its limited heavy road plant on road formation and pavement work on core roads only.
v. **Labour-based for the non-core**: If the National rural roads accessibility policy genuinely reflects the limited budgets available for Vanuatu's road subsector, levels-of-service for non-core roads – and their standards and specifications – will be modest . Labour-based works could be the best way for PWD to bring these roads to all-weather (basic access) condition.
vi. **Tractor-based equipment**: Tractor-based equipment should be used for: a) formation and pavement works on volcanic ash and roads; b) supporting IBCs building structures and laying pavement seals; and c) supporting labour-based rehabilitation works on non-core roads.

Type and location of road maintenance work: Road maintenance decisions should also have policy guidance. Maintenance should aim to sustain agreed levels-of-service across the National network, road-by-road.

i. **A National rural roads accessibility policy**: R4D should immediately engage MIPU-PWD on the benefits of a National rural road accessibility policy and work with PWD to prepare a policy development plan (please see subsection 2.1.5).
ii. **Maintenance works consistent with the Policy**: R4D should help PWD apply the policy to road maintenance programming. Maintenance should aim to achieve the level-of-service target established for each road in the National rural roads accessibility policy.
iii. **Heavy plant for the core**: R4D should encourage PWD to assign the highest priority for its heavy plant to routine maintenance of its core roads that are in a fully 'maintainable' condition – for light grading and rolling 2-3 times per year. Without this work, outputs from R4D road rehabilitation works are not sustainable. Periodic maintenance of core roads should also be equipment-based, preferably outsourced.
iv. **Labour-based – core roads**: For core roads, IBCs and community contracts should continue to be used for the labour-based maintenance of drainage structures and for grass cutting. But no manual pavement work should be required for fully maintained 'good' condition core roads. Regularly graded/rolled gravel roads should not require pot-hole patching, manual reshaping, etc.
v. **Labour-based – non-core roads**: For non-core roads, all routine maintenance should be labour-based (using hand-tools and light mechanical equipment). Labour-based works are appropriate

for pavement patching, keeping drainage structures clear, brush cutting if needed. Manual reshaping is not possible on hardened coronous pavements.

vi. **Tractor-based equipment**: Tractor-based equipment should be used for: a) routine pavement maintenance of volcanic ash and scoria core roads; and b) supporting labour-based maintenance.

PWD Divisions and R4D working in partnership:

If the issue is not resolved, R4D will not achieve its service delivery end-of-program outcome. R4D will be less relevant and may no longer be the 'right thing to do'. A fundamental change of approach is needed: to introduce incentives for Divisions to collaborate with R4D and to divert support away from non-responsive Divisions:

i. **No separate R4D works plan**: There should be no R4D separate works plan and RMEs should be withdrawn from the field.
ii. **R4D support open to all**: PWD should be offered a road works support budget ceiling through R4D, not assigned to any particular province or location.
iii. **Demand-driven PWD support**: PWD divisional managers would bid for R4D support through their annual work planning exercise.
iv. **Selection process**: R4D and PWD management would review these bids and determine what works R4D would help finance. All planning and scoping would be the responsibility of PWD, with some guidance and mentoring from R4D.
v. **Site inspectors**: R4D would no longer fund SIs.
vi. **Changed RME role**: RMEs would become, or would be replaced by internationally recruited supervision engineers/site foremen who would be centred in the Port Vila hub (and possibly Luganville), and would be assigned to the field to inspect and co-certify works. Depending on skill sets, R4D supervision engineers would also mentor Divisional counterparts.
vii. **Fiduciary checks**: R4D payment for works would require: a) procurement 'no-objection' by an R4D procurement and financial management specialist; b) payment clearance by the R4D supervision engineer/site foreman; and c) other R4D fiduciary checks as required.
viii. **Transition:** There would need to be a graduated transition from R4D's current physical works supply-driven approach to a demand-driven approach. Also, DFAT funding may need to be re-calibrated to reflect expected take-up by PWD Divisions.

7.2 For capacity development

Targeting improved service delivery: The draft 2015 HR capacity building plan focuses sharply on core technical training to improve service delivery. The allocation of training opportunities will be more closely linked to PMR results – good performance will be rewarded with training opportunities. The following additional actions are recommended:

i. **Focus on PWD's core business**: sustainable road maintenance.
ii. **Keep it real and achievable**: plan and deliver within the existing resource framework.
iii. **Consolidate**: coordinate and make better use of existing resources.
iv. **Improve performance**: in the use of existing resources and systems.
v. **Focus training on service delivery**: train in works planning, scoping, procurement, contract management and supervision.
vi. **Improve performance management and accountability**: more frequent one-on-one management by video and utilise new Management Information System dash board.

Targeting sound public expenditure management (PEM): R4D's PEM support is effective. The following guidance is offered:

i. **Continue**: R4D's PEM support should continue to incrementally build MIPU-PWD capacity.

ii. **Strategic context**: R4D should set its PEM support within a broader reform and capacity development strategic context. R4D and PWD are working on this.
iii. **Review current delivery arrangements**: R4D should review the new PFM and procurement TA arrangements no later than June 2015 and recommend any changes. For instance, is a combination of part-time home-office and in-country PFM inputs from the international adviser effective, efficient, and achieving value-for-money?

7.3 For safeguards

IBCs providing equal employment opportunities to local women: The new R4D and PWD Social Safeguards Framework covers gender equality. The Framework's implementation plan includes a detailed field-level awareness and training program, including on gender equality. R4D will now produce safeguards manuals or 'toolkits' customised for in-field use by IBCs, SIs and others. The following additional actions are recommended:

i. **Continue IBC training**: The ISP understands that having IBCs genuinely commit to gender equality requires repeated training and messaging. DFAT should encourage and support ISP proposals for continued IBC training and the production of manuals and toolkits (see above).
ii. **Site inspector performance**: PWD divisions should performance-manage SIs. Or ultimately, a different contract management and construction supervision arrangement is required (see Section 2.3).
iii. **RME performance**: RMEs need also to be performance-managed on this issue by the ISP. How is it that not a single female worker day is recorded for Ambae since July?
iv. **Contract incentives**: The standard PWD IBC contract contains no sanctions or rewards for performance of subsection 3.5.2. Imposing sanctions is unlikely to work because of poor contract supervision. Rewards may work – an additional payment increment for achieving agreed gender equality benchmarks. There is a rich international literature on this issue. The ISP should propose amendments to the General and/or Specific Conditions of Contract to institute rewards for IBCs to increase worker participation opportunities for women.

IBCs protecting workers from workplace health and safety (WHS) risks: R4D continues to train IBCs and SIs, and the new Social Safeguards Framework and implementation plan covers WHS. But more effective supervision of IBCs by PWD foremen and SIs is the key to improving site WHS practices. The following is recommended:

i. **Continue IBC training**: The ISP understands that having IBCs genuinely commit to better WHS practices requires repeated training and messaging. DFAT should encourage and support ISP proposals for continued IBC training and the production of manuals and toolkits.
ii. **SI performance**: R4D should encourage PWD divisions to performance-manage SIs. This would probably require changes to sanctions and rewards and hence changes to how R4D delivers support.
iii. **RME performance**: RMEs need also to be performance-managed on this issue by the ISP. Local customs and conditions do not abrogate RMEs of their safeguards responsibilities. RMEs' monthly progress reports [submitted separately or through the PWD management information system (MIS)] should always include a section on WHS compliance and issues, whether or not there is anything to report.
iv. **MIS dashboard**: R4D is helping PWD build its MIS. R4D should encourage PWD to endorse the inclusion of WHS reporting as part of the MIS dashboard.
v. **Contract incentives**: The ISP should propose amendments to the General and/or Specific Conditions Contract to institute rewards for IBCs to improve WHS field practices.

IBCs meeting environmental management standards: IBC and SI refresher training covers environmental management. The new Social Safeguards Framework and implementation plan cover environment and climate change adaptation. The following is recommended:

i. **Vanuatu Resilient Roads Manual**: The R4D-PWD Road Standards and Specifications Manual (currently titled: 'Vanuatu Resilient Roads Manual') should be supplemented to include environmental management guidelines for typical IBC works that carry minor-to-moderate environmental impact risks, principally civil works in watercourses and on steep and/or unstable ground. The Manual currently provides guidelines on mitigating environmental impacts of completed works, but not environmental risks during construction.
ii. **Social Safeguards Framework**: The R4D-PWD Social Safeguards Framework section 4.5 on Environment and Climate Change Adaptation should be re-written and expanded to provide practical guidance to field staff on managing environmental risks associated with typical rural road works. Currently, section 4.5 only provides background on GoV climate change adaptation initiatives and GoA support. It may be sufficient to summarise and cross reference what is in the Road Standards and Specifications Manual.
iii. **IBC training**: DFAT should encourage and support ISP proposals for continued IBC training and the production of manuals and toolkits to help IBCs and PWD field personnel recognise, assess, and mitigate environmental risks associated with typical IBC civil works.
iv. **Reporting**: RMEs' monthly progress reports (separate reports or through PWD's MIS) should always include a section on Environmental Management, whether or not there is anything to report.

7.4 For program management

Strategic oversight and guidance by the Project Steering Committee (PSC): The current PSC arrangement is hampering the PSC in providing strategic oversight and governance for R4D. It is also not conducive to effective high level Government of Vanuatu and Government of Australia collaboration and partnering. The following is recommended:

i. **An R4D PSC**: GoV and GoA should immediately re-establish an R4D-dedicated PSC as agreed in the DFA.
ii. **Fewer members**: GoV and GoA should negotiate to streamline the membership of the re-established PSC so that **regular** members include only representatives of (the) agency/ies directly and substantively involved in the delivery and success of the Program.
iii. **Secretariat support**: The ISP should provide secretariat services to the PSC, including the preparation of PSC agenda, papers, minutes and other support.
iv. **Meeting schedule**: The PSC should meet quarterly and each meeting should consider the ISP's Quarterly Progress Report for that period. Additional meetings may be called as required.
v. **Follow the DFA**: All other administrative arrangements agreed in the DFA should apply.

R4D technical assistance internally vetted and quality assured: The ISP currently has no structured regime for the internal peer review of TA outputs. The following is recommended:

i. **Identify QA inputs**: The ISP should include specific internal quality assurance/peer review actions in its 2015 Work Plan. It should identify what TA outputs will be peer reviewed, and by whom (by designations, not name).
ii. **Risk matrix**: The R4D Risk Matrix should be amended to reflect this.

7.5 For progress toward end-of-program outcomes

End-of-program outcome 1 (EOPO 1) – PWD's strategic framework is guiding management and operational decision-making:

Policy: Recommendations in section 2.1 relating to a National (rural) roads accessibility policy apply equally to achieving EOPO 1. Without this policy PWD will not have a realistic 'strategic framework'.

Organisation performance: R4D cannot directly influence the external environment that impacts PWD performance. But as improved systems and processes increase transparency and accountability, MIPU-PWD Management will be better equipped to protect their evidence-based and policy-based decisions from outside interference. It is recommended that R4D continues is current approach and level-of-effort in helping PWD incrementally strengthen systems, processes and competencies.

EOPO 2 – PWD is managing and maintaining its road network to a high standard in a cost effective manner:

Achieving EOPO 2 hinges around transitioning from a supply-driven to a demand-driven approach to delivering R4D physical works support.

8. Next steps

The interim review recommends substantive changes to improve Program performance. DFAT Port Vila is of the view that the interim review has been thorough and robust and that an independent evaluation is not be required until later in the Program.

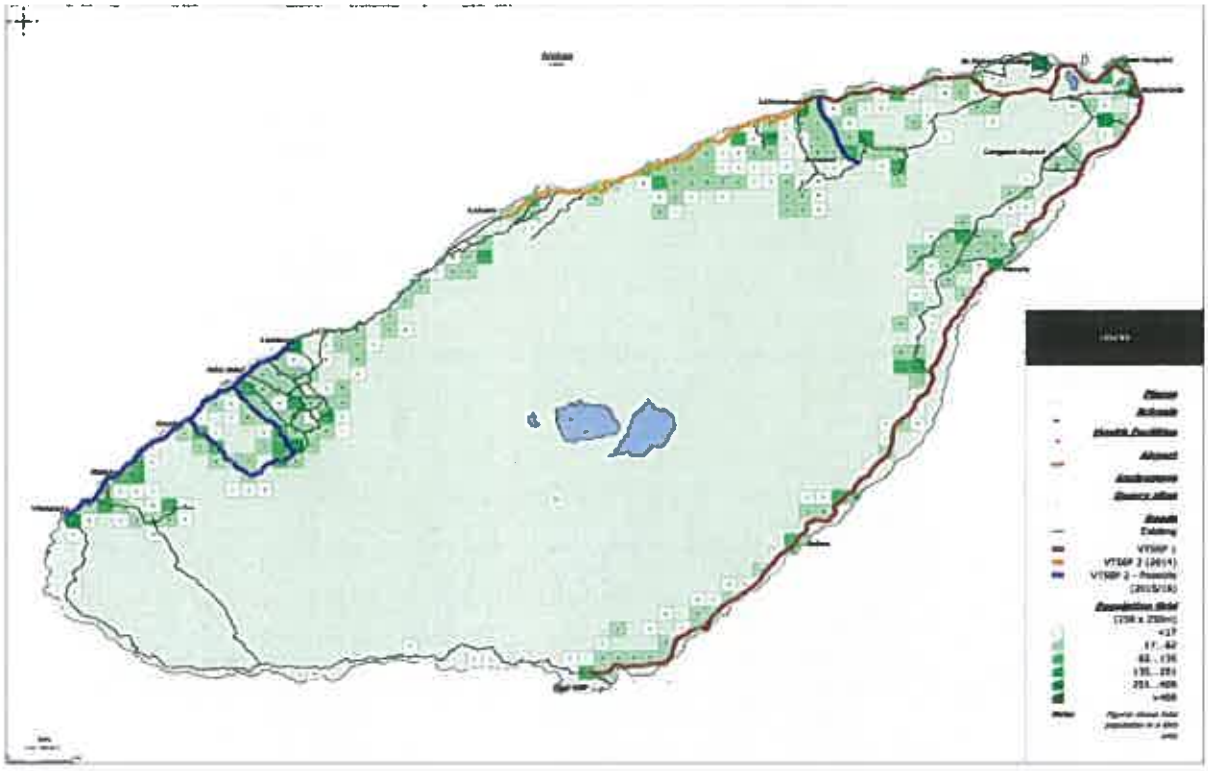
The most important next step is to confer with MIPU-PWD, other Vanuatu Government stakeholders, and the ISP about the review's findings and recommendations. DFAT Port Vila will lead this process, which will aim for a consensus around mid-term changes to the R4D design and implementation – **by end-May**. Next steps after that would be:

i. **Investment Concept**[47]: DFAT Port Vila (leading), MIPU-PWD and the ISP would draft an 'Investment Concept' setting out the revised Program design through until the end of the current Phase. It would require higher level DFAT and GoV endorsement. **By end-June 2015**
ii. **Transition plan**: DFAT, MIPU-PWD and the ISP would agree a transition plan forward to the revised Investment Concept. **By end-August 2015**.
iii. **Contract amendment**: DFAT and the ISP would negotiate a contract amendment. **By end-September 2015**.
iv. **Implementation**: PWD and the ISP would execute the transition plan.
v. **Independent evaluation**: DFAT and PWD would conduct an independent evaluation of R4D later this Phase. DFAT and PWD would consider a joint Independent Evaluation-Investment Design approach. **Timing will depend on whether Phase II is extended for a 4th year**.

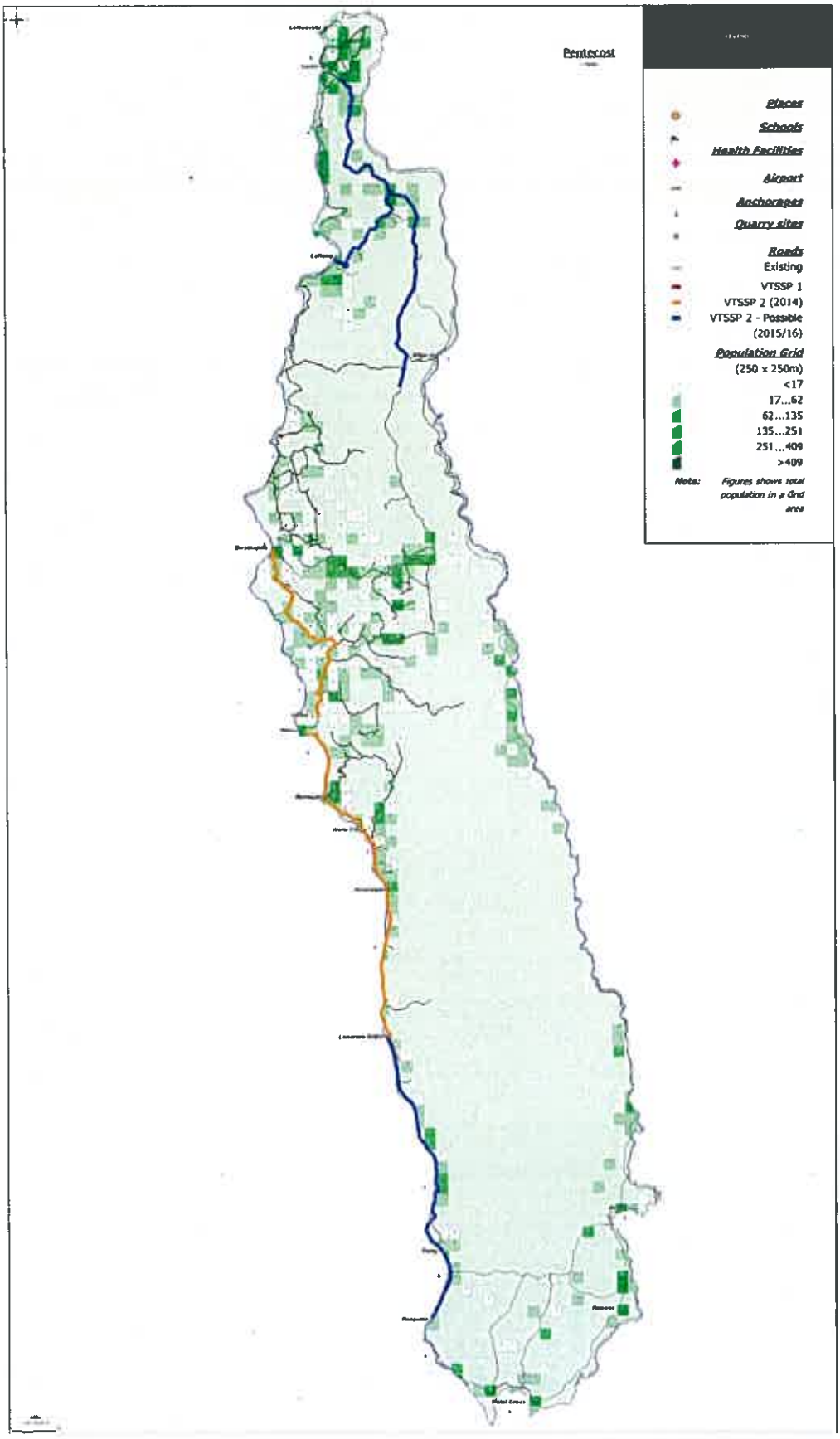
[47] Refer DFAT Aid Programming Guide (July 2014) subsection 3.2.5.

ANNEX 1: Island Maps

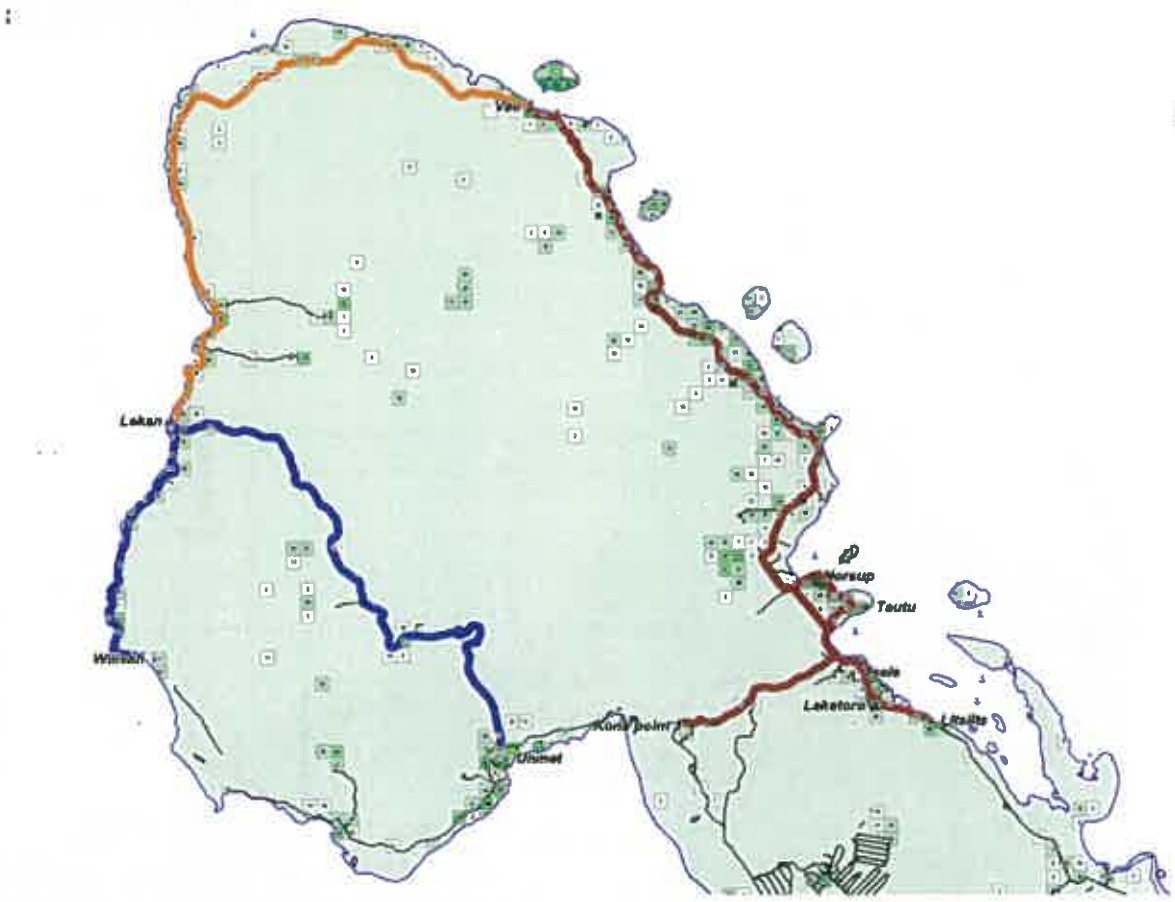
Ambae Island, Penama Province



Pentecost Island, Penama Province



Malekula Island (north and central), Malampa Province



Tanna Island, Tafea Province