

# Penyediaan Air Minum dan Sanitasi Berbasis Masyarakat (PAMSIMAS)

## FINAL INDEPENDENT EVALUATION

VOLUME 1 – FINAL V.2

Commissioned by DFAT

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9<sup>th</sup> January 2023



## CONTENTS

ACRONYMS .....	vi
EXECUTIVE SUMMARY .....	ix
1. INTRODUCTION .....	1
1.1 DFAT’S KEY CONTRIBUTIONS & ACCOUNTABILITIES .....	1
1.2 PURPOSE OF THE EPE.....	1
1.3 SCOPE.....	1
1.4 TARGET AUDIENCE .....	2
1.5 KEY EVALUATION QUESTIONS .....	2
1.6 METHODS AND TOOLS.....	2
1.6.1 Data from PAMSIMAS MIS .....	2
1.6.2 A Focus on Utility .....	2
1.6.3 Evaluation Framework.....	2
1.6.4 Primary & Secondary Data.....	3
1.6.5 Field Mission.....	3
1.6.6 Household Survey .....	3
1.6.7 Disability Inclusion.....	3
1.7 ETHICS.....	3
1.8 LIMITATIONS.....	4
1.7 STRUCTURE OF THIS REPORT .....	4
2. EVOLUTION OF PAMSIMAS & RELEVANCE OF DFAT’S ROLE .....	4
2.1 EVOLUTION .....	4
2.2 RATIONAL FOR PAMSIMAS APPROACHES .....	6
2.3 FACTORS IN SELECTING A CDD APPROACH .....	6
2.4 EXPERIENCES FROM THE FIELD VISITS .....	6
2.5 PROGRAMME ADAPTATIONS .....	7
2.5.1 PAMSIMAS .....	7
2.5.2 DFAT’s Contributions .....	8
2.6 RELEVANCE OF DFAT’S INVOLVEMENT.....	8
2.6.1 Previous Experiences in Indonesia.....	8
2.6.2 Focus on Quality Delivery .....	8
2.6.3 Relevance of DID.....	9
2.6.4 Relevance of DFAT’s Attention to Gender Equality.....	9
3. DEVELOPMENT RESULTS – PAMSIMAS PROGRAMME.....	10
3.1 WATER SUPPLY .....	10

3.1.1	MIS Data.....	10
3.1.2	Qualitative Data from the Fieldwork.....	10
3.1.3	Quantitative Data from the HH Survey.....	10
3.2	WATER QUALITY .....	11
3.2.1	MIS Data.....	11
3.2.2	Quantitative Data from the HH Survey.....	11
3.2.3	Water Quality Test Results .....	11
3.3	IMPROVED SANITATION.....	11
3.3.1	MIS Data.....	11
3.3.2	Quantitative Data from the HH Survey.....	11
3.4	HYGIENE BEHAVIOURS.....	12
3.4.1	MIS Data.....	12
3.4.2	Qualitative Data from the Fieldwork.....	12
3.4.3	Quantitative Data from the HH Survey.....	12
3.5	WSS MANAGEMENT & FINANCING.....	12
4.	DEVELOPMENT RESULTS – DFAT’S CONTRIBUTION.....	13
4.1	EFFECTIVENESS .....	13
4.1.1	Expanding Reach – WATSAN.....	13
	Water .....	13
	Sanitation & Hygiene.....	14
	DFAT Villages with DID Programmes.....	14
4.1.2	Improving Quality & Influencing Delivery .....	14
4.1.3	Influencing Strategy .....	15
4.2	GENDER EQUALITY & WOMEN’S PARTICIPATION.....	15
4.3	DISABILITY INCLUSION.....	16
4.3.1	Accessible Infrastructure .....	16
4.4	EFFICIENCY .....	17
4.4.1	Extent WB Loan & DFAT Grants has Leveraged other Funding Sources.....	17
4.4.2	Extent to Which the Total Cost of PAMSIMAS is Justifiable.....	18
	Achievements of Project Objectives.....	18
	Infrastructure Per Capita Cost .....	18
	Economic Viability.....	19
	Budget and Budget Realisation.....	19
	Infrastructure vs Capacity Building and Project Management .....	19
	Benefits of DFAT Grant Funding.....	20

Community Contribution.....	20
4.5 MONITORING AND EVALUATION.....	21
4.5.1 Direct Contribution .....	21
Gender-Related Monitoring .....	22
Disability-Related Monitoring .....	22
4.5.2 Indirect Contribution.....	22
4.5.3 Strategic Contribution.....	23
4.6 RISKS AND SAFEGUARDS .....	23
4.6.1 Risk Identification and Management.....	23
4.6.2 Risk Mitigation.....	24
4.6.3 Social and Environmental Safeguards .....	24
4.7 SUSTAINABILITY.....	25
4.7.1 The two Dimensions of Sustainability.....	26
4.7.2 Overview of Sustainability in the Villages Surveyed.....	26
4.7.3 Sustainability of Water Systems.....	27
Water Quality.....	27
Functionality of Water Systems.....	27
Quality of Construction .....	28
4.7.4 Sustainability of Sanitation.....	29
Toilet Coverage.....	29
Wastewater Disposal .....	29
WASH in Schools .....	29
4.7.5 Institutional/Governance Sustainability .....	29
Community-Managed Organisation .....	29
District Association of KPSPAMs .....	30
Community Participation.....	30
Local Socio-Political Relations.....	30
KPSPAM and PDAM.....	30
Village Government Support.....	31
District Government Support .....	31
Provincial Government Support.....	32
National Government Support.....	32
4.7.6 Financial Sustainability .....	33
Tariffs and Cost Recovery .....	33
5. CONCLUSIONS.....	34

5.1	ANSWERS TO THE KEY EVALUATION QUESTIONS.....	34
5.1.1	KEQ 1: To What Extent Have PAMSIMAS III Objectives & Outcomes Been Achieved?.....	34
	What are the Factors Affecting Performance?.....	34
	Did M&E Systems Generate Credible Information that was Used for Management Decision-Making, Learning and Accountability Purposes?.....	34
	To What Extent has the Programme Influenced GOI Policy and Practice?.....	35
	Would Benefits Last After DFAT Funding Ceases?.....	35
5.1.2	KEQ 2: To What Extent has the Programme Modality Contributed to achievements?.....	36
	Has the Community-Driven Development Approach Helped or Hindered Achievement?.....	36
	To What Extent has the WB Loan & DFAT Grants Leveraged Other Funding Sources?.....	36
	What was Most Valuable About DFAT’s Support to PAMSIMAS?.....	36
	To What Extent has PAMSIMAS Demonstrated a Focus on Gender Equality and Inclusion of People with a Disability?.....	37
5.2	OTHER CONCLUSIONS .....	37
5.2.1	PAMSIMAS as a Social and Institutional Change Agent .....	37
5.2.2	PERFORMANCE BETWEEN THE PHASES & DFAT-FUNDED VILLAGES.....	37
5.2.3	When PAMSIMAS Works Best .....	38
5.2.4	Some Issues with KPI and Attribution of Sanitation & Hygiene.....	38
6.	CONSIDERATIONS FOR FUTURE WASH PROGRAMMING .....	38
6.1	KEQ 3: WHAT ARE THE KEY LESSONS FROM PAMSIMAS FOR FUTURE PROGRAMMING? .....	38
6.1.1	How Could PAMSIMAS Taken a More Strategic Approach on Gender and Disability?.....	38
	Gender .....	38
	Disability.....	39
6.1.2	What Factors Need to be Considered When Designing Rural WATSAN Programmes that Would Maximise Opportunities for Scaling-up in a Decentralisation Context? .....	39
6.1.3	What Could Have Done Differently to Enhance Sustainability of WATSAN Systems?.....	39
6.1.4	How Could Cross-Sectoral Collaboration be Improved? .....	40
6.2	PARENT PAMSIMAS PROGRAMME.....	40
6.2.1	A More Holistic Future Programme.....	40
6.2.2	Governance .....	40
	National Level .....	40
	Provincial Level .....	41
	District Level.....	41
	Sub-District/Kecamatan Level .....	41
	Village Level.....	41
6.2.2	Results Framework, Baseline Data, and the MIS.....	41

Results Framework.....	41
Baseline Data .....	42
The MIS.....	42
6.3 DFAT’S INVOLVEMENT GOING FORWARD.....	42
APPENDIX 1: VILLAGES SURVEYED DURING THE FIELDWORK PHASE.....	DOCUMENT PART 2 - APPENDICES
APPENDIX 2: PAMSIMAS ACTIVITY COMPONENTS & THEIR EVOLUTION.....	DOCUMENT PART 2 - APPENDICES
APPENDIX 3: FILES REFERENCED IN SECTION 3.....	DOCUMENT PART 2 - APPENDICES
APPENDIX 4: FILES, FIGURES & TABLES REFERENCED IN SECTION 4 .....	DOCUMENT PART 2 - APPENDICES

## TABLES

Table 2.1: Summary of the 5 Key Activity Components of PAMSIMAS .....	5
Table 2.2: Lessons From PAMISIMAS I Applied in PAMSIMAS II.....	7
Table 4.1: Comparison of DFAT Villages and the National Programme – KPI 2, 13, 14 & 15.....	14
Table 4.2: Minor Adaptations to KPI 1, 2 and 3 to Enhance Utility of the Results Framework.....	22
Table 4.3: Functionality of Water Supply Systems in Villages Surveyed During Fieldwork.....	28
Table 4.4: District Budget for WASH Against Total Budget in PAMSIMAS Districts .....	31
Table 4.5: Fiscal Capacity of the 9 Districts Surveyed .....	32
Table 4.6: Tariffs and Cost Recovery.....	33

## ACRONYMS

<b>Acronym</b>	<b>Definition</b>
<b>ADB</b>	Asian Development Bank
<b>APBD</b>	Regional Budget for Province, District and Cities <i>Anggaran Pendapatan dan Belanja Daerah</i>
<b>APBN</b>	State Budget <i>Anggaran Pendapatan dan Belanja Negara</i>
<b>AQC</b>	Aid Quality Check
<b>AUD</b>	Australian Dollars
<b>BAPPEDA</b>	Provincial Development Planning Agency <i>Badan Perencanaan Pembangunan Daerah</i>
<b>BAPPENAS</b>	National Planning Development Agency <i>Badan Perencanaan Pembangunan Nasional</i>
<b>BCC</b>	Behavioural Change Communication
<b>BTOR</b>	Back to Office Reports
<b>BUMD</b>	Regionally Owned Enterprise <i>Badan Usaha Milik Daerah</i>
<b>BUMDes</b>	Village Owned Enterprises <i>Badan Usaha Milik Desa</i>
<b>CBM</b>	Christian Blind Mission
<b>CDD</b>	Community-Driven Development
<b>Cipta Karya</b>	MPWH Directorate General of Human Settlements
<b>CLTS</b>	Community-Led Total Sanitation
<b>CAP</b>	Community Action Plan
<b>CPMU</b>	Central Project Management Unit
<b>CR</b>	Cost Recovery
<b>CSE</b>	Civil Society Engagement
<b>CSS</b>	City Sanitation Strategy
<b>DAK</b>	Special Allocation Fund <i>Dana Alokasi Khusus</i>
<b>DFAT</b>	Department of Foreign Affairs and Trade
<b>DGHS</b>	Directorate General of Health Services
<b>DHO</b>	District Health Office
<b>DID</b>	Disability Inclusion Design
<b>DJPK</b>	Directorate General for Fiscal Balance <i>Direktorat Jenderal Perimbangan Keuangan</i>
<b>DJPPR</b>	Directorate General for Budget Financing and Risk Management <i>Direktorat Jenderal Pengelolaan Pembiayaan dan Risiko</i>
<b>EIRR</b>	Economic Internal Rate of Return
<b>EPE</b>	End of Programme Evaluation
<b>FGD</b>	Focus Group Discussion
<b>FSM</b>	Faecal Sludge Management
<b>FIMR</b>	Final Investment Monitoring Report
<b>GAP</b>	Gender Action Plan
<b>GDP</b>	Gross Domestic Product
<b>GEDSI</b>	Gender, Disability, Social Inclusion
<b>GM SOP</b>	Gender Mainstreaming Strategies and Women's Participation in the Programme Standard Operating Procedures
<b>GOA</b>	Government of Australia
<b>GOI</b>	Government of Indonesia
<b>HAL</b>	Sanitation Hibah <i>Hibah Air Limbah</i>
<b>HC</b>	House Connection

<b>Acronym</b>	<b>Definition</b>
<b>HH</b>	Household
<b>ICR</b>	Interim Completion Report
<b>IET</b>	Independent Evaluation Team
<b>IDM</b>	Developing Village Index <i>Indeks Desa Membangun</i>
<b>IDR</b>	Indonesian Rupiah
<b>IMR</b>	(Annual) Investment Monitoring Report
<b>IPAL</b>	Wastewater treatment plant <i>Instalasi Pengelolaan Air Limbah</i>
<b>Kalsel</b>	South Kalimantan <i>Kalimantan Selatan</i>
<b>KEQ</b>	Key Evaluation Questions
<b>KIAT</b>	Indonesia-Australia Partnership for Infrastructure <i>Kemitraan Indonesia Australia untuk Infrastruktur</i>
<b>KII</b>	Key Informant Interview
<b>KKM</b>	District Community Group <i>Kelompok Kecamatan Masyarakat</i>
<b>KPI</b>	Key Performance Indicator
<b>KSM</b>	Non-Governmental Organisation (NGO) <i>Kelompok Swadaya Masyarakat</i>
<b>LG</b>	Local Government
<b>M (m)</b>	Million
<b>M&amp;E</b>	Monitoring and Evaluation
<b>MDB</b>	Multilateral Development Bank
<b>MDG</b>	Millennium Development Goal
<b>MEL</b>	Monitoring, Evaluation and Learning
<b>MIS</b>	(PAMSIMAS) Management Information System
<b>MOE</b>	Ministry of Education
<b>MOEF</b>	Ministry of Environment and Forestry
<b>MOF</b>	Ministry of Finance
<b>MOHA</b>	Ministry of Home Affairs
<b>MOPWH</b>	Ministry of Public Works and Housing
<b>MPA</b>	Methodology for Participatory Assessment
<b>NTT</b>	Nusa Tenggara Timur
<b>MVDDRT</b>	Ministry of Village, Development of Disadvantaged Regions and Transmigration
<b>NAWASIS</b>	National Water Supply and Sanitation Information System
<b>NMC</b>	National Management Consultant
<b>O&amp;M</b>	Operation and Maintenance
<b>ODF</b>	Open Defecation Free
<b>OPD</b>	Organisations of People with Disability
<b>OPOR</b>	Operation, Maintenance, Optimisation, and Rehabilitation <i>Operasi, Pemeliharaan, Optimalisasi, Dan Rehabilitasi</i>
<b>ORAP</b>	Operational Risk Assessment
<b>PAF</b>	Performance Assessment Framework
<b>PAMSIMAS</b>	National Community-Based Water Supply and Sanitation Programme <i>Programme Nasional Penyediaan Air Minum dan Sanitasi Berbasis Masyarakat</i>
<b>PDAM</b>	Local Government Owned Water Company <i>Perusahaan Daerah Air Minum</i>
<b>PDO</b>	Programme Development Objective
<b>PD PAL</b>	Regional Wastewater Management Company <i>Perusahaan Daerah Pengelolaan Air Limbah</i>
<b>PERDA</b>	Local Law <i>Peraturan Daerah</i>



<b>Acronym</b>	<b>Definition</b>
<b>PGG</b>	PAMSIMAS General Guidelines
<b>PHAST</b>	Participatory Hygiene and Sanitation Transformation
<b>PKK</b>	Women Empowerment movement <i>Pembinaan Kesejahteraan Keluarga</i>
<b>PPDI</b>	Indonesian Association of Persons with Disabilities <i>Perkumpulan Penyandang Disabilitas Indonesia</i>
<b>PPSP</b>	Road Map for Acceleration of Urban Sanitation Development <i>Programme Percepatan Pembangunan Sanitasi Permukiman</i>
<b>PUPR</b>	Ministry for Public Works and Human Settlements <i>Kementerian Pekerjaan Umum dan Pemukiman</i>
<b>PUSKESMAS</b>	Community Health Centre <i>Pusat Kesehatan Masyarakat</i>
<b>ROM</b>	Regional Oversight and Management Consultant
<b>RPJMN</b>	Indonesia Medium Term Development Plan
<b>sAIIG</b>	Australia Indonesia Infrastructure Grants for Municipal Sanitation
<b>SANIMAS</b>	Community-Based Sanitation Programme <i>Sanitasi Berbasis Masyarakat</i>
<b>SOP</b>	Standard Operating Procedure
<b>SPAL</b>	Wastewater Disposal Facilities <i>Sarana Pembuangan Air Limbah</i>
<b>WSS</b>	Water Supply System <i>Sistem Pasokan Air Minum</i>
<b>SSK</b>	City Sanitation Strategy <i>Strategi Sanitasi Kota/Kabupaten</i>
<b>STBM</b>	Community-Based Total Sanitation <i>Sanitasi Total Berbasis Masyarakat</i>
<b>TA</b>	Technical Assistance
<b>ToC</b>	Theory of Change
<b>ToR</b>	Terms of Reference
<b>TSS</b>	Total Suspended Solids
<b>WACC</b>	Weighted Average Cost of Capital
<b>WASH</b>	Water, Sanitation and Hygiene
<b>WASPOLA</b>	Water and Sanitation Policy Formulation and Action Planning (
<b>WATSAN</b>	Water and Sanitation
<b>WSES</b>	Water Supply and Environmental Sanitation
<b>WSLIC</b>	Water Supply for Low Income Communities
<b>WSS</b>	Water Supply System
<b>WUC</b>	Water User Committee
<b>WWTP</b>	Wastewater Treatment Plant

## EXECUTIVE SUMMARY

### INTRODUCTION

This report documents the key findings of the End of Programme Evaluation (EPE) of Penyediaan Air Minum dan Sanitasi Berbasis Masyarakat (PAMSIMAS) or “community-based rural water supply and sanitation” which was a national Government of Indonesia (GOI) programme supported by the World Bank (WB) and the Government of Australia’s (GOA) Department of Foreign Affairs and Trade (DFAT). The total investment for all three phases of PAMSIMAS was USD1.6 billion (AUD2.1 billion): GOI USD983 million; the WB loan amount of USD 537 million; DFAT grants to date amounting to AUD124 million (approximately 6% of the total).

### EVALUATION PURPOSE

The primary purpose of this evaluation, as detailed in the Terms of reference (ToR), is to inform DFAT’s Final Investment Monitoring Report (FIMR) due in January 2023 for DFAT support to PAMSIMAS Phase 3 by:

1. Summarising the evolution of PAMSIMAS (Phase 1 to 3) and DFAT support to the programme.
2. Identifying the evidence - and assess its robustness - of the broad development results of PAMSIMAS at the end of Phase 3.
3. Assessing the development results related to the Australian government’s contribution.

The secondary purpose of the evaluation is to synthesize key learnings for DFAT and key GOI stakeholders when considering future rural water and sanitation investments. To support the synthesis and focus of key learnings, the ToR set out three key evaluation questions (KEQ), and sets of sub questions, that the evaluation must answer:

**KEQ 1** To what extent have PAMSIMAS III objectives and outcomes been achieved?

**KEQ 2** To what extent has the programme modality contributed to the achievement of programme goals/outcomes?

**KEQ 3** What are the key lessons from PAMSIMAS for future programming?

### METHODS AND TOOLS

The evaluation used a mixed method approach, capturing, analysing and triangulating qualitative and quantitative data collected using a range of techniques and appropriate primary and secondary sources. It was conducted in a wholly participatory and inclusive manner, involving all stakeholder groups. An Evaluation Framework (EF) was formed using the KEQ and their sub-questions and these were ordered under the programmatic criteria used in the FIMR. The EF steered all data collection whether quantitative, qualitative, primary or secondary. Fieldwork was conducted in 42 PAMSIMAS villages in 12 districts spanning 3 provinces: Central Java, NTT and South Kalimantan. The team working in Central Java was accompanied by members of the national disability rights organisation: Perkumpulan Penyandang Disabilitas Indonesia (PPDI), to assist in engaging with people with disability and to assess infrastructure built under DFAT’s Disability Inclusive Design (DID) sub-programme. A household survey was also conducted focusing on WASH, livelihoods, and Wellbeing before and after PAMSIMAS, which collected data from 830 households across 37 villages.

### FINDINGS

#### *Effectiveness*

- **According to MIS data, PAMSIMAS met or exceeded targets for improving access to water sources.** Nonetheless, there are questions over the reliability of MIS data particularly related to WSS functionality and supply of at least sufficient water to meet basic domestic needs. There is scope for improvements in the results framework which will increase the robustness of this data and allow for more proactive programme management.
- **Evidence of improved sanitation and good hygiene behaviours is weaker** due to lack of comprehensive of baseline data and the difficulty attributing any changes to PAMSIMAS, given the number of actors operating in this space.
- **DFAT’s contribution facilitated an expansion of the programme** enabling an additional 5 million people (12% of total) to gain access to improved WASH.
- **In DFAT-funded villages:**
  - The proportion with improved WATSAN coverage of greater than 80% is higher than the national average.
  - Female participation in PAMSIMAS is higher than national average figures.
- **DFAT’s emphasis on the software elements of PAMSIMAS**, such as capacity building and TA, has been instrumental in achieving high quality delivery and the success, although not in all villages, of the CDD approach.
- **DFAT’s contribution also enhanced attention to key cross-cutting issues** which may not otherwise have been addressed, for example disability inclusion and stunting.
- **DFAT’s DID initiative met with challenges in developing infrastructure that met technical guidelines**, but the initiative has elevated the awareness and the means to achieve inclusivity in WATSAN and village development more generally.

### *Gender Equality and Disability Inclusion*

- Location, economic status and social standing influenced women's access to and use of PAMSIMAS water and their extent of involvement in the programme.
- **The programme did not adequately address gender equality issues** such as women's influence, empowerment, and control over resources.
- **The programme did not work strategically with men** to build their commitment to and awareness of the importance of WASH.
- **Targets for village construction of accessible facilities were exceeded but accessibility standards were not always met**, and Organisations of People with Disability (OPD) were not involved.

### *Efficiency*

- **Over USD1 billion was leveraged by the combined World Bank loan and DFAT grant funds**, which to USD1.60 spent by government, communities, and CSR on WASH for every USD spent by World Bank and DFAT.
- **Pro rata, DFAT's financial support of USD 98.2 m has leveraged about USD 157 m.**
- **DFAT's financial contribution represented excellent value for money** with 6% of total programme expenditure generating WASH benefits for 12% of the total PAMSIMAS population supported.
- **The Economic Internal Rate of Return for the programme was estimated by the WB to be 36.1%** and compared to the discount rate of 12% this shows the programme to be highly viable in economic terms. However, some doubts are raised with this high EIRR due to some inaccuracies in MIS data on the level of WSS functionality.
- **The average cost per house water connection was estimated at USD 190 for PAMSIMAS**, less than 35% of the reported connection cost for a typical PDAM connection.

### *Risks and Safeguards*

- **The programme risks were well understood and monitored by the WB and DFAT**, and the risk register was updated biannually.
- **The evidence is that communication between WB and DFAT (and presumably GOI) regarding risk identification and mitigation has been strong throughout the programme.**
- **Risks identified for PAMSIMAS I and II were successfully mitigated** through changes in programme implementation.
- **Risks identified in PAMSIMAS III continue to pose a threat to WSS sustainability**, such as inadequate WSS O&M and management, insufficient tariffs, and lack of local capacity, and will require continued monitoring and assistance.
- **Mitigation of and adaptation to climate change has not been at the forefront of PAMSIMAS implementation to date.** As the programme proceeds the impact of climate change will become more critical in the development of technical and financially sustainable water supply and sanitation systems.

### *Sustainability*

- **According to MIS data targets for both dimensions of sustainability have been surpassed:** (i) long-term O&M of WSS & persistence of hygiene behavioural changes, and (ii) propagation of the PAMSIMAS approach to other villages
- **Many of the reported "fully functioning" systems that were surveyed during the fieldwork have issues** either with water shortages during peak periods or in the dry season and some are systems with very few connections.
- **Of the 42 villages visited by the IET, only 13 (31%) had WSS that could be considered as fully functional in terms of assured sustainability.**
- **The most successful villages identified during fieldwork were those that had prioritised water supply** in their development planning and had used village funds or DAK funds to expand upon WSS constructed under PAMSIMAS.

## **ANSWERS TO THE KEY EVALUATION QUESTIONS**

### **KEQ 1: TO WHAT EXTENT HAVE PAMSIMAS III OBJECTIVES AND OUTCOMES BEEN ACHIEVED?**

From the perspective of the MIS data, it may be concluded that PAMSIMAS III has exceeded outcome targets and fully met the PDO. However, looking beyond the MIS KPI data the IET has identified several weaknesses and inflexibilities that have served to limit the programme's performance and subsequent benefits.

#### *What are the Factors Affecting Performance?*

- **Inadequate WSS management and financing for routine O&M means that over 2 million consumers** at the end of PAMSIMAS III have insufficient or no water supplies from their systems.
- **WSS operating below installed capacity appears to be a significant performance issue.** According to data held on the MIS, if all PAMSIMAS WSS operated at installed capacity a further 6.5 million people could benefit from improved water sources.
- **Inflexibility of funding to address unforeseen issues has left some WSS abandoned** without ever having functioned; two such cases, or 5% of those inspected, were identified during the fieldwork.

- Despite the longevity of the programme, most villages have failed to extend access to improved water sources to more of their community members. This is likely due to a combination of not prioritising water at village level, lack of additional accessible water sources, and poor demand.

#### *Did M&E Systems Generate Credible Information that was Used for Management Decision-Making, Learning and Accountability Purposes?*

- Data generated from the M&E systems was used consistently for management decision-making, accountability purposes, and in some cases for learning.
- There is evidence that learning from some surveys and studies that could have benefited the performance of PAMSIMAS were not incorporated into the programme.
- Decision-making and learning throughout the programme are likely to have been hampered by MIS data inaccuracies identified and some weaknesses detected in the form of several KPI and the systems in place to track WSS functionality and consumer satisfaction.

#### *To What Extent has the Programme Influenced GOI Policy and Practice?*

- PAMSIMAS and DFAT's role have been highly successful in strengthening intra and inter-government collaborative working; influencing the development of the Village Law passed in 2014; in demonstrating the relevance of the CDD approach; and the elevation of PAMSIMAS to a national programme.
- Less success has been achieved in promoting the quality of engagement of women in the programme or wider village development; and promoting village governments to commit to prioritising and budgeting for WASH developments in the longer-term, which have ramifications on the sustainability of existing WATSAN infrastructure and any future rural WASH programme.

#### *Would Benefits Last After DFAT Funding Ceases?*

- **Sustainability of WSS:** Going forward and without external financial assistance, it is most unlikely that the level of TA and capacity building support applied in the current programme will continue. In this case the IET feel that many WSS that are marginal will not be able to sustain a regular supply of water that meets basic household needs and are in danger of eventually failing. The challenge for the GOI is that it is highly likely that most of these marginal WSS cannot be identified from the data held on the MIS due to the narrow definition of WSS functionality.
- **Gender Equality:** FDGs with key government ministries in the final week of the fieldwork revealed a lack of urgency or need for monitoring women's participation in PAMSIMAS beyond the set quotas. It is likely, therefore, that gender equality beyond the quotas will become a secondary concern going forward.
- **Disability Inclusion:** Like gender equality, and particularly since disability inclusion posed challenges to all levels of government, it is difficult to envisage that any benefits accrued from inclusive WATSAN facilities will last in the longer-term now that DFAT's funding and involvement has ended.

## **KEQ 2: TO WHAT EXTENT HAS THE PROGRAMME MODALITY CONTRIBUTED TO THE ACHIEVEMENT OF PAMSIMAS?**

The IET have identified cases where the CDD approach has flourished and other where it has worked less well or failed. In view of the disparate nature of villages and their communities, the general conclusion is that the CDD approach is unlikely to be suitable for every village in the country.

#### *Has the Community-Driven Development Approach Helped or Hindered Achievement?*

The CDD approach helped to improve achievements by:

- **Communities that a high baseline level of social capital** and the ability and willingness to join forces to work towards success. Social capital does not necessarily correlate with wealth and the IET identified extraordinary programme achievements in a relatively poor village in NTT as well as a few wealthier villages in South Kalimantan.
- **Reinforcing the concept of local government responsibility for water supply and sanitation** and improving coordination between agencies in the sector.
- **Developing awareness and understanding that improved WASH** has a value in promoting a better quality of life.
- **Striving to ensure that there is effective management of the water supply system** including the concept of paying for services in delivering water supply to the household. These have taken hold rapidly in communities with a good baseline level of social capital but have failed to do so in other, less cohesive and fragile villages.

It has been less helpful in:

- **Villages with autocratic heads or newly elected heads** that view PAMSIMAS as their predecessor's project.
- **Communities with low social capital** due to fragile local development; ethnic tensions or other reasons for poor community cohesion such as large disparities in living conditions and access to services; or villages with a history of external support from INGOs and NGOs.
- **Villages with availability of alternative and affordable water sources** resulting in no incentive to pay for PAMSIMAS water or contribute to WSS repairs.

### *What was Most Valuable About DFAT's Support to PAMSIMAS?*

Without DFAT's involvement, and because of the constraints on the use of the WB loan, it is difficult to envisage that the high-level of community engagement, and local capacity building and TA necessary for CDD to gain traction on such a scale would have been achieved to the extent it has. DFAT's flexible financial contribution, experiences and knowhow has, in the opinion of the IET, played a seminal role in supporting a successful CDD approach that is the foundation of all PAMSIMAS achievements.

### **KEQ 3: WHAT ARE THE KEY LESSONS FROM PAMSIMAS FOR FUTURE PROGRAMMING?**

#### *How Could PAMSIMAS Taken a More Strategic Approach on Gender and Disability?*

- **Any new programme should consider monitoring beyond the quota of women set for participation** in various fora and institutions and move to tracking the quality of women's engagement to the extent they can influence decisions.
- **A new programme should work with men more strategically** to build their awareness of, and commitment to, clean water and hygiene to help influence broader village development processes to better prioritise WASH.
- **The participation of people with disabilities needs to be improved at all stages of a DID project.**
- **Monitoring of DID projects needs to go beyond the number of facilities built** and track the quality of infrastructure and whether it is accessible as per the technical guidelines.

#### *Factors to Consider When Designing Rural WATSAN Programmes to Maximise Opportunities for Scaling-up in a Decentralisation Context?*

Provision of WATSAN facilities for small, isolated communities requires a particular approach and set of skills which lends itself well to a CDD approach provided effective community facilitation methods are practised. However, scaling up of these systems to supply a larger group of hamlets and villages in a decentralisation context offers a different set of challenge that need to be considered:

- **As the systems are scaled-up they become larger and more complex**, and require increased technical, financial and management capability from the operator. This in turn increases the requirement for additional ongoing TA from programme implementers and the various levels of government.
- **As the systems are scaled up, so the water resource requirement becomes greater** and appropriate regulation of water resources and the efficient use of these resources becomes critical. In these circumstances, additional technical support will be required which may go beyond the village and district level capability.
- **As sanitation facilities are scaled up, wastewater solutions become more critical** and it may be necessary to move beyond purely on-site sanitation and develop a faecal sludge management programme as well as systems to manage grey water disposal.

#### *How Could Cross-Sectoral Collaboration be Improved?*

- By including other relevant directorates and ministries in the institutional arrangements, such as the Directorate of Sanitation for ensuring quality of sanitation infrastructures and Ministry of Women Empowerment and Child Protection to support gender equality elements.
- Continuing to strengthen the WSES working group at provincial and district levels to support cross-sector coordination and collaboration; assist in M&E; and facilitate linkages with INGOs, local NGOs and the private sector.

### **DFAT'S INVOLVEMENT GOING FORWARD**

Critical roles for DFAT in future would be in sustaining the focus on the software elements of the programme, and continue the emphasis on cross-cutting issues, such as gender equality, disability inclusion, and stunting:

- **Maintain quality delivery and to improve the prospects of sustainability and growth in coverage** of WATSAN in existing a new villages. Sustainability and poor growth of water coverage should be key concerns going forward.
- **Improve M&E at the village level by increasing the capacity of facilitators, sanitarians, and others** involved in collecting programme data, particularly associated with baselining and WSS functionality so that accurate data is available to act as an early warning system for proactive programme management.
- **Pilot and share effective strategies for promoting women's influence, empowerment, and inclusive development** based on an understanding of the intersectionality of women's various identities.
- **Continue to improve the DID model**, which includes enhancing strategies for the effective engagement of people with disability/OPDs in all stages of the DID; capacity and technical support to facilitators to meet DID standards; and improved monitoring of built facilities against accessibility standards.
- **Continue to influence strategies and policies affecting the new programme and the wider national sector** by maintaining its support for high level surveys, studies and evaluations of a new programme and to influence the government to incorporate important learnings from these to develop the programme further, and to cascade appropriate learning into other relevant initiatives.

# 1. INTRODUCTION

Penyediaan Air Minum dan Sanitasi Berbasis Masyarakat (PAMSIMAS) or “community-based water supply and sanitation” was a national Government of Indonesia (GOI) programme supported by the World Bank (WB) and the Government of Australia’s (GOA) Department of Foreign Affairs and Trade (DFAT). PAMSIMAS was initiated in 2008 and incorporated three phases: PAMSIMAS I (2008-2012), PAMSIMAS II (2013-2015) and PAMSIMAS III (2016-2021). In 2018 PAMSIMAS was elevated to a national platform programme for rural water supply and sanitation.

The total investment for all three phases of PAMSIMAS is USD1.6 billion (AUD2.1 billion): GOI USD983 million; the WB loan amount of USD 537 million; DFAT grants to date amounting to AUD124 million (approximately 6% of the total). Australia support for PAMSIMAS was channelled through the Recipient Executive Trust and the WB’s activities were funded via the Bank Executed Trust Fund. DFAT grants were disbursed to the WB in three phases: PAMSIMAS I AUD54 million; PAMSIMAS II AUD50 million; and PAMSIMAS III AUD20 million. This third disbursement included AUD10 million specifically for slum upgrading as part of the National Slum Upgrading Programme (KOTAKU).

Over the course of the programme, the WB provided management support and technical assistance to the GOI. A Central Project Management Unit (CPMU), under Directorate of Water Supply in the Ministry of Public Works and Housing, was established to manage the implementation of PAMSIMAS. Other ministries involved in PAMSIMAS were the Ministry of Home Affairs (MOHA); Ministry of Village, Development of Disadvantaged Regions and Transmigration (MVDDRT); Ministry of Health (MOH); Ministry of Finance (MOF); and BAPPENAS.

PAMSIMAS III came to close at the end of 2021 although the remaining DFAT grant funds are continuing to be dispersed throughout 2022. The GOI intends to continue activities funded through the state budget to reach underserved villages. At this critical juncture, DFAT has commissioned this End of Programme Evaluation (EPE) to assess their contribution to the programme and to synthesize key learnings to support DFAT and key GOI stakeholders when considering future rural water and sanitation investments.

## 1.1 DFAT’S KEY CONTRIBUTIONS & ACCOUNTABILITIES

DFAT’s financial and technical support for PAMSIMAS was strategically focused to maximise influence and impact:

1. Direct contribution
  - Supported additional villages to gain access to improved WASH
  - Introduced Disability Inclusive Design (DID) to work towards fully accessible WATSAN
2. Indirect contribution
  - Technical assistance (TA) and capacity building across the parent programme
  - Supporting salaries/wages of key PAMSIMAS personnel
3. Strategic contribution
  - With a seat at the “PAMSIMAS Table” and with many years’ experience of WASH programmes in Indonesia, DFAT strove to influence programming and strategy in PAMSIMAS and the wider WASH sector nationally

DFAT’s contribution and accountability are the focus of this report as discussed in Section 4, but to place DFAT’s support in context the overall development results of PAMSIMAS is investigated and discussed first in Section 3.

## 1.2 PURPOSE OF THE EPE

The primary purpose of this EPE is to inform DFAT’s Final Investment Monitoring Report (FIMR) due in January 2023 for DFAT support to PAMSIMAS III. In particular, the evaluation has three key objectives:

1. Summarise the evolution of PAMSIMAS (phase 1 to 3) and DFAT support to the programme.
2. To identify the evidence of the broad development results of PAMSIMAS at the end of Phase 3.
3. To assess the development results related to the Australian government’s contribution.

The secondary purpose of the evaluation is to synthesize key learnings to support DFAT and key GOI stakeholders when considering future rural water and sanitation investments.

## 1.3 SCOPE

This evaluation provides a summative assessment on the results and performance of the whole PAMSIMAS programme from 2008 to 2022, with an emphasis on PAMSIMAS III. And while the focus is on the results related to DFAT grants, this has been set out against a general assessment of the broader programme.

The evaluation draws on the substantial secondary information, including the Interim Evaluation Study: Beneficiary Survey (December 2019), PAMSIMAS Gender Study, PAMSIMAS Sustainability Study, Interim Independent Completion Report (ICR); restructuring studies and other reports and data gathered by the programme's M&E activities that is available through the PAMSIMAS management information system (MIS).

The evaluation team worked remotely and in Indonesia between September 2022 to January 2023 to meet with key DFAT staff, key stakeholders at the WB, relevant Ministries such as BAPPENAS, Ministry of Health (MOH), Ministry of Village, Development of Disadvantaged Regions and Transmigration (MVDDRT), Ministry of Home Affairs (MOHA), Ministry of Public Works, and Housing (MPWH). Fieldwork was conducted in three provinces to validate secondary information and collect primary data in support of the key purposes of this evaluation.

### 1.4 TARGET AUDIENCE

The primary intended users of this evaluation are the DFAT infrastructure team (to help prepare the FIMR), the multilateral branch (Canberra) and Water Security Section (Canberra), and the GOI. It is also intended that GOI partners as well the Multilateral Development Banks (MDB) in-country will find the evaluation useful.

### 1.5 KEY EVALUATION QUESTIONS

The ToR details the key evaluation questions (KEQ) that the EPE must answer. These are based on the key issues relevant to the needs of DFAT but were strategically couched in broad terms to avoid being overly prescriptive:

1. To what extent have PAMSIMAS III objectives and outcomes been achieved?
2. To what extent has the programme modality contributed to the achievement of programme goals/outcomes?
3. What are the key lessons from PAMSIMAS for future programming?

For the purpose of this EPE, the three overarching evaluation question, above, are referred to as **Top-Level Questions**, and the sets of sub-questions as the **Strategic Questions**. It is noted that some of the strategic questions are not aligned closely to their respective top-level questions. However, this is not seen as problematic since the strategic questions have been aligned to the FIMR's programmatic criteria – also shown in the IET's Evaluation Plan<sup>1</sup>, and the answers to these strategic questions will be feed into answering their most appropriate top-level questions. In all there are 23 strategic questions and 13 of these have been marked as a **PRIORITY**.

### 1.6 METHODS AND TOOLS

#### 1.6.1 Data from PAMSIMAS MIS

The evaluation used a mixed method approach, capturing, analysing and triangulating qualitative and quantitative data collected using a range of techniques and appropriate primary and secondary sources. It was conducted in a wholly participatory and inclusive manner, involving all stakeholder groups.

#### 1.6.2 A Focus on Utility

The ToR defines the primary intended users (audience, Section 1.3) and uses of the EPE, and it is these intended uses that guided all key decisions that were made about the EPE process. The EPE Team have endeavoured to produce an evaluation report that presents evidence-based answers to the evaluation questions and one which is accessible to the full range of key stakeholders.

#### 1.6.3 Evaluation Framework

The sets of Strategic Questions, referred to in Section 1.4, were considered too broad to be addressed directly. To facilitate answers to them, they were subdivided into smaller "bite sized" subsets of questions that could be addressed more straightforwardly with the data collected from primary and secondary sources. These subsets are referred to as **Specific Questions**, and it is the answers to these that, in turn, led to the evidence-based answers of the broader strategic and three top-level questions. The Evaluation Framework (EF) contains the three levels of evaluation questions (top, strategic, and specific); integrates the programme's results framework<sup>2</sup>; and lists where information could be located/collected to support answering the questions, and the data collection methods and tools required. The evaluation questions have been placed under the most appropriate programmatic criteria that were lifted from DFAT's FIMR template: Effectiveness; Efficiency; GEDSI; Relevance; Monitoring & Evaluation; Sustainability; and Risks and Safeguards. The complete EF is presented in IET's Evaluation Plan<sup>3</sup>, and it is this framework that steered all data collection – whether quantitative, qualitative, primary or secondary - and supported

<sup>1</sup> Murray, P., Damayanti, L., Pascoe, F., and Kearton, R. "PAMSIMAS Evaluation Plan", 16.10.2020: [PAMSIMAS Evaluation Plan, 16.10.22](#)

<sup>2</sup> Specifically, the outcomes, outcome indicators, and intermediate results indicators.

<sup>3</sup> [PAMSIMAS Evaluation Plan, 16.10.22](#)

the provision of evidence-based answers to the questions from the specific-level, right through to the top-level KEQs (see Section 5).

#### 1.6.4 Primary & Secondary Data

The EPE has been based principally on the considerable body of secondary information amassed over the previous 14 years since the programme's inception in 2008, and includes a range of DFAT and WB design, progress/activity, aide memoires, standard operating procedures (SOP), and independent evaluation reports, and the PAMSIMAS MIS that holds a wealth of information on all aspects of the programme, including the indicators from the results framework. The secondary information has been augmented through the collection of primary data from key stakeholders, including DFAT; WB; relevant government ministries; personnel from provincial, local, and village governments; and community members. Several key informant interviews (KII) and focus group discussions (FGD) were conducted virtually, but the majority took place in-person during a three-week field mission to Indonesia.

#### 1.6.5 Field Mission

Fieldwork was conducted in Indonesia over the period 9<sup>th</sup> through 27<sup>th</sup> October 2022. During this period the team was supported by a further local WASH specialist, 6 trained enumerators (for the household survey, see below), 2 interpreters, and 6 members from the national disability rights organisation: Perkumpulan Penyandang Disabilitas Indonesia (PPDI). The fieldwork took place in 3 provinces, namely Central Java, Nusa Tenggara Timur (NTT), and South Kalimantan (Kalsel); 9 districts; and 42 villages. The rationale for the selection is described in the IET's Evaluation Plan<sup>4</sup>, and a list of districts and villages visited are included in Appendix 1.

#### 1.6.6 Household Survey

During the fieldwork phase in the 3 provinces, a household survey was conducted by 6 enumerators, who were former PAMSIMAS facilitators, in 37 villages. In total, 830 households were surveyed using a digital questionnaire and Kobo Toolbox: 259 in Central Java; 248 in NTT; and 323 in South Kalimantan. The villages surveyed with the household (HH) questionnaire are highlighted in the full fieldwork village list in Appendix 1. Note that villages with a non-functioning PAMSIMAS water system were not included in the HH survey.

#### 1.6.7 Disability Inclusion

Committed to the principle of “**nothing about us without us**” DFAT enabled the Independent Evaluation Team (IET) to be joined in Central Java by six people with disability, most of whom were wheelchair users, and their chaperones representing the PPDI. This offered a unique opportunity for the IET to seek advice from those with lived experiences as persons with disability in the field on universal access to water and sanitation (WATSAN); to test out the accessibility of WATSAN infrastructure in the DFAT-funded Disability Inclusive Design (DID) villages; and to ensure effective participation of people with disability in discussions with village communities.

### 1.7 ETHICS

Since survey enumerators had contact with individual community members, they were fully briefed on ethical conduct during their online training and prior to starting the survey in the field. Enumerators were supplied with an introductory “Informed Consent” statement to read/recite to each prospective respondent, which described the purpose of the survey; the approximate time it would take; that participation was purely voluntary and there would be no reprisals for that person, their household or village for declining to participate; and that the survey was completely anonymous and no data collected could be used to trace back to the respondent. The survey could not commence unless the respondent checked a box showing on the tablet to confirm their agreement to participate<sup>5</sup>.

Enumerators were not permitted to enter the respondent's house to conduct the interview but to ensure respondents were seated and comfortable outside. The only time the enumerator might need to enter a house was for a visible inspection of handwashing facilities, but respondents were given the option to deny permission and give a verbal account of their facilities.

The raw data collected during the survey was uploaded to the Kobo Toolbox server, which is maintained by Amazon Web Services (AWS) with state-of-the-art protection protocols. This data was accessible only to the Team Leader who carried out the analysis for the IET. The data is held on the Team Leader's machine as an encrypted file.

<sup>4</sup> Murray, P., Damayanti, L., Pascoe, F., and Kearton, R. “Final Evaluation Plan: Community-Based Water Supply and Sanitation (PAMSIMAS)”, 16<sup>th</sup> September 2020: [PAMISIMAS Evaluation Plan. 16.10.22](#)

<sup>5</sup> If the respondent was unable to check the box, it was agreed that the enumerator could do this after gaining permission to do so.



## 1.8 LIMITATIONS

Noting that by the end of 2021 PAMSIMAS reached 35,443 villages spread over 408 districts/cities in 33 provinces<sup>6</sup>, the 42 villages visited and a household survey conducted in 37 village during the fieldwork phase of this evaluation are not statistically significant samples<sup>7</sup>. It is important to note, however, that the beneficiary surveys conducted for the WB (2018 and 2019) focusing on PAMSIMAS I and II are also not considered to be statistically significant samples if viewed with the same accuracy rigour as the current fieldwork. The 2018 study sampled 40 villages and the 2019 survey covered 162 out of the total of 12,250 villages for phase 1 and 2<sup>8</sup>.

The IET has been careful not to make unsubstantiated claims or conclusions on the wider national programme using the data collected in the field, although it has allowed for a direct comparison with MIS data (in the villages surveyed) and a limited amount of beneficiary survey data and facilitated suggestions for further investigations and related considerations for any future national WASH programming.

## 1.7 STRUCTURE OF THIS REPORT

The remainder of this report is divided into 5 main sections:

Section	Description
2. Evolution & Relevance of DFAT's Role	Summary of key adaptation over the 3 phases of parent programme, and evolution of DFAT's contribution and relevance to PAMSIMAS and wider WASH sector.
3. Development Results - PAMSIMAS	Overview of programme successes and comparisons with data collected from the IET's fieldwork. A summary is presented in the main text with a full version in Appendix 3.
4. Development Results – DFAT's Contribution	A focus on DFAT's contribution to PAMSIMAS using FIMR criteria: Effectiveness, Efficiency, Gender Equality & Disability Inclusion, M&E, Risks and Safeguards, and Sustainability.
5. Conclusions	Conclusions based on overall findings – the parent programme & DFAT's contribution. Includes answers to the KEQ 1 and 2 and their sub-questions based on data analysis presented & discussed in previous section 2, 3, and 4.
6. Considerations for Future Programming	Learning from conducting this EPE that has potential for consideration in any future rural water and sanitation programming and on the most effective for any future DFAT support. This section starts with the answer to KEQ 3 and sub-questions.

## 2. EVOLUTION OF PAMSIMAS & RELEVANCE OF DFAT'S ROLE

### 2.1 EVOLUTION

This section presents a brief summary of the PAMSIMAS programme and key adaptations through its life cycle to remain relevant in changing contexts and focus. This addresses evaluation objective 1: *Summarise the evolution of PAMSIMAS (phase 1 to 3) and DFAT support to the programme.*

The programme was built on the lessons of the Water Supply and Sanitation for Low Income Communities Projects (WSLIC), which was implemented from 1993 through 2010 over two phases. The WSLIC used a community-driven development (CDD) approach to water supply and a zero-subsidy approach to household sanitation. Sanitation inputs were limited to triggering and health promotion.

The GOI recognised that mainstreaming similar approaches would require a national framework; attention to advocacy and the recognition of WSS as a development priority; and incentives for local government ownership of the programme in project areas. In June 2003, community-based policy on water supply and environmental sanitation (WSES) was ratified by the GOI. The policy espouses strategies that empower Indonesian communities to choose, finance and manage their own services; encourages participation by all communities; and, in this regard, promotes gender and poverty-sensitive approaches in engaging and working with beneficiary communities. Equally importantly, it strongly supports improved community sanitation and hygiene practices. This laid the foundation for the inception of PAMSIMAS I in 2008, and with a target to reach 5,000 villages in 110 districts and

<sup>6</sup> 2021 Annual Report for PAMSIMAS and KOTAKU, World Bank Group, 2022.

<sup>7</sup> A significant random sample with 95% confidence level, 5% margin of error and population proportion of 50% is 381 villages. However, using Slovin's formula (used when there is insufficient information about a population's behaviour) yields a random sample of 396 villages at a margin of error of 5%.

<sup>8</sup> Even if the random sampling had used previous intelligence on the population level of improvement, for example KPI 10 with among the highest improvement of water related KPI (87% in 2016 and 82.7% in 2018), the number of villages to randomly sample would have been 172 in the 2018 study and 216 in 2019 for 95% confidence level & 5% margin of error. Slovin's method increases the sample to 387 villages.

15 provinces this was a significant scaling up of its predecessor programme. There was an understanding at this time that PAMSIMAS was a very ambitious programme and learning and adaptation would be high on the agenda.

Underpinning the programme were 5 key activity components, and these are summarised in Table 2.1. A full account of all activity components and sub-components are presented in Appendix 2, along with tables illustrating the key changes in each component over the programme's 3 phases.

By the end of this first phase in 2012, the programme had reached over 6,800 villages and had accumulated a significant amount of learning. It was found that some communities, due to a range of challenges, were unable to create sufficient demand for services; and sustainability of WSS was posing a challenge in several villages.

**Table 2.1: Summary of the 5 Key Activity Components of PAMSIMAS**

**1. Community Empowerment and Local Institutional Development**

To ensure that a greater proportion of the Indonesian households use and benefit from improved water supply and sanitation services.

**2. Improving Hygiene and Sanitation Behaviour and Services**

To encourage targeted communities to adopt better hygiene practices.

**3. Water Supply and Public Sanitation Infrastructure**

To encourage targeted communities to manage and sustain these improved services.

**4. District and Village Incentive Grants**

To encourage local governments to scale up other water projects using the PAMSIMAS methodology.

**5. Implementation Support and Project Management**

To encourage programme management units at the district and central level to successfully manage and support this and other similar programmes.

In response to these challenges, PAMSIMAS II incorporated a number of modifications to the initial design, including introducing a less standardised process in selecting participating villages to avoid developing projects where there was insufficient demand; and adopting the national Sanitasi Total Berbasis Masyarakat<sup>9</sup> (STBM) programme, administered by the Ministry of Health (MOH), to improve sanitation and hygiene behaviours in PAMSIMAS villages; the Community-Led Total Sanitation (CLTS) approach was used in phase one but the STBM methodology is more encompassing with CLTS as one of its 5 pillars. PAMSIMAS recognized the needs to provide continuous support to past villages or villages that have entered the O&M phase. By the end of PAMSIMAS I sustainability facilitators were engaged to provide support and monitor past villages.

PAMSIMAS II commenced in 2013 with a target to reach a further 5,000 village communities. At the end of this phase in 2015, the programme exceeded targets, as in the first phase, by reaching over 5,300 villages.

PAMSIMAS III ushered in some more modification, most notably the provision of capacity building and advocacy activities for village governments to maintain and expand water and sanitation services, encourage allocation of village government budgets to promote post-construction activities to enhance sustainability of PAMSIMAS-supported water supply and sanitation services. A greater attention was given to the roles of village government in PAMSIMAS III, particularly since the introduction of the Village Law in 2014. A new subcomponent was added under component 1, subcomponent 1.4: *development of mechanisms and capacities of village government for maintaining and expanding water supply and sanitation services* and the village government is obligated to contribute a minimum of 10% for the community block grant.

In 2017, DFAT spearheaded the delivery of a comprehensive disability-inclusive pilot project in 59 villages across 26 districts, known as the Disability Inclusive Design (DID) pilot, which was subsequently rolled out into 10,676 PAMSIMAS villages.

By the end of 2021, all three phases of the programme had reached a cumulative total of almost 36,000 villages.

<sup>9</sup> STBM (Community-Based Total Sanitation) pillars: 1. open-defecation free; 2. hand washing with soap; 3. household water supply and food management; 4. household solid waste management; and 5. household wastewater management.

## 2.2 RATIONAL FOR PAMSIMAS APPROACHES

There can be no question of the relevance in 2008 of implementing a broad-based rural water supply and sanitation programme in Indonesia. After all, the trends at that time showed that:

- 24 of Indonesia's 32 provinces would fail to reach MDG targets for safe drinking water supply by 2015.<sup>10</sup>
- Only about 56 percent of the rural population would gain access to safe water supply by 2015.<sup>11</sup>
- The trend in population access to improved sanitation in rural areas appears worse, remaining stagnant at around 38 percent since 1985.<sup>12</sup>
- Of the four most important causes of under-5 mortality in Indonesia (diarrhoea and typhoid) are faecal borne illnesses directly linked to inadequate water supply, and poor sanitation and hygiene.
- Various studies indicate that the economic losses from inadequate sanitation, poor hygiene practices and lack of access to safe water supply are huge. One estimate puts these losses at over 2.4% of GDP in 2002, which translates to a loss of about IDR 1.6 trillion.

Furthermore, by 2021, PAMSIMAS had supported 35,443 villages spread over 408 districts/cities in 33 provinces to gain access to safe water and improved sanitation. Data from PAMSIMAS indicated that 82% of villages had reached ODF status and 92% had adopted handwashing programmes<sup>13,14</sup>.

Prior to the commencement of PAMSIMAS, community-driven development (CDD) projects such as WSLIC were being implemented but the coverage continued to remain limited. At the time of the formulation of PAMSIMAS, the policy had become more conducive to sector improvements using a CDD approach as the GOI had included in its MTDP targets for increasing access of the poor to water supply and sanitation. A national policy framework for community-based water supply and environmental sanitation (WSES) was developed, which aimed to help in mainstreaming and scaling up CDD water and sanitation projects.

## 2.3 FACTORS IN SELECTING A CDD APPROACH

The decision to use a CDD approach for PAMSIMAS was made on the basis that:

- The policy environment was favourable.
- A CDD approach stimulates community ownership, increases the participation of women, poor and other marginalised groups, and has better prospects for sustainability.
- The economic rate of return on CDD WASH projects such as WSSLIC had been shown to be high.
- Intersectoral cooperation is critical for sustainability. While the community approach is designed to enhance communities' ability to make informed technical choices and implement hygiene behaviour changes, a multi-disciplinary approach will also strengthen local governments' capacity to monitor the technical, social and health impacts of WSS investments, provide appropriate post-construction support and undertake joint advocacy for the expansion of the sector to respond to unmet demand.

Further, CDD programmes are generally very popular with communities; can be scaled up and allow for flexible designs to account for regional variations; and can be delivered at lower cost than other forms of intervention without sacrificing technical quality<sup>15</sup>. There are also some contexts where the CDD approach has been shown to not work so well<sup>16</sup>.

CDD appears to work best and achieve the greatest results when it is part of a broader development strategy that involves reforms to governance, investment in productivity and is integrated with efforts to improve the quality of public service delivery.

## 2.4 EXPERIENCES FROM THE FIELD VISITS

The programme has enabled a relatively rapid scaling up of provision of water supply and sanitation in most villages visited. However, the basis of the selection of sub-projects within villages was not clear, despite the

<sup>10</sup> A 2003 study by United Nations Support Facility for Indonesia Recovery

<sup>11</sup> The National Social and Economic Survey (SUSENAS)

<sup>12</sup> MDG monitoring data

<sup>14</sup> 2021 Annual Report for PAMSIMAS and KOTAKU, World Bank Group, 2022

<sup>15</sup> Community-Driven Development, Myths and Reality; Susan Wong, Scott Guggenheim, World Bank Group, May 2018.

<sup>16</sup> Ibid, pp. 20-24

introduction of selection criteria in phase 2. Some villages visited had reliable alternative improved water sources (public and private protected wells), and others still had consistently not prioritised WASH in their development plans or made any attempts to expand on systems provided by PAMSIMAS<sup>17</sup>.

In Central Java and South Kalimantan, most villages visited were appreciative of the PAMSIMAS process. However, the two villages with non-functional water systems in Central Java believed that the programme budget was insufficiently flexible to allow them to satisfactorily complete their projects. Village heads from another 2 villages believed the traditional contractor-based system was superior to the CDD model - one believed that it was easier to hold the contractor to account for substandard work and the other believed the villagers did not have time or money to make contributions either in-cash or in-kind.

When asked whether they preferred the PAMSIMAS approach or supply from the PDAM, all villages preferred PAMSIMAS. While tariffs were generally lower for PAMSIMAS systems than for PDAM supplies, this was not the main reason for their preference. Generally, communities felt a sense of ownership of their PAMSIMAS system and believed that they had more control over the system operation.

The cost of construction was considered to be lower than other contractor-based systems and the quality was generally good although there were concerns about the depth of pipes laid which had resulted in breakages.

It is difficult to gauge how representative the community decision-making process was and how this influenced the selection of the sub-project within the village – certainly the extent of involvement of women, people with disability and Organisations for People with Disability (OPDs) may not have been at the level that had been hoped and this is discussed further in Section 4.2.

## 2.5 PROGRAMME ADAPTATIONS

### 2.5.1 PAMSIMAS

In progressing through the various stages of PAMSIMAS, the programme considered lessons learned from the earlier stages and made some adaptation to address shortfalls in the earlier stages. Lessons learned from PAMSIMAS I that were addressed in PAMSIMAS II are shown in Table 2.2.

**Table 2.2: Lessons From PAMSIMAS I Applied in PAMSIMAS II**

LESSONS LEARNED FROM PAMSIMAS I	ADAPTATIONS IN PAMSIMAS II
Nation-wide standardized village targeting mechanisms led to selection of some villages without adequate demand.	Technical guidelines developed for village selection and committee established at district level to conduct the selection process using agreed criteria.
Specific implementation mechanisms are needed to provide additional support to regions with weaker implementation capacities, such as the Eastern Region and the outer islands.	Additional grants provided for optimisation of underperforming villages.
Limited incentives for local governments to promote operation and maintenance capacity of village level infrastructure.	Incentive grants provided to well performing villages, especially with O&M activities. Additional grants also provided for expansion of village systems.
Over reliance on project-hired community facilitators at the village level.	Community facilitator system strengthened, and additional senior facilitators hired to provide OJT to other facilitators and provide continual support to & monitoring of villages with existing water systems. A Training and Development Service Team (TDS) established and PMAC and CMC teams replaced by 7 Regional Oversight Management Teams (ROMs).

<sup>17</sup> For example, the village of Cikulan in Semarang District Central Java (PAMSIMAS 2) suffered water shortages but had not expanded on the original PAMSIMAS project and did not have water supply and sanitation as a village development priority.

LESSONS LEARNED FROM PAMSIMAS I	ADAPTATIONS IN PAMSIMAS II
Provision of the same grant amount to each village limited district governments' abilities to meet needs and, in some cases, skewed cost per capita as villages with small populations received same amount of funding as densely populated villages.	This did not appear to be successfully addressed as some examples observed in Central Java of systems not functioning due to inflexibility of budget allowance. <sup>18</sup>

Further adaptations were made to PAMSIMAS III following completion of PAMSIMAS II. These focused on (i) the need to transfer financing of block grants for infrastructure to GOI and district government financing in the light of the Medium-Term Development Plan (MTDP) objective of universal access to water and sanitation by 2019; and (ii) additional support to strengthen local government to conduct monitoring and post construction support to KPSPAM, including targeted capacity building for O&M and the facilitation to strengthen the Associations of KPSPAM. Based on the field visits conducted as part of this evaluation, development of post construction O&M support to KPSPAM, including that from KPSPAM Associations is still a work in progress.

Although the adaptations made during the programme all seemed logical given the lessons learned from previous stages, and may have improved delivery, the performance of the water supply and sanitation systems in the villages visited during the evaluation did not show any obvious correlation to the stage of PAMSIMAS in which they were implemented. Similarly, the IET found no relationship between performance of the village systems whether they were supported by DFAT or via other financing. Nonetheless, some beneficial differences were identified in DFAT-funded villages, based on data held in the MIS, and these are discussed further in Section 4.1.

### 2.5.2 DFAT's Contributions

DFAT has been proactive and highly flexible throughout the programme in its use of grant funds to support PAMSIMAS. This has enabled DFAT to alter the focus of its financial support when the need was identified and facilitated the introduction of new and innovative projects into the parent programme.

Over the first two phases of the programme, DFAT focused chiefly on expanding the coverage of improved water, sanitation, and hygiene behaviours, and on maintaining high quality delivery through TA and capacity building. In Phase 3, DFAT focused attention on cross-cutting themes such as disability inclusion and stunting, whilst maintaining emphasis on quality delivery and sustainability.

## 2.6 RELEVANCE OF DFAT'S INVOLVEMENT

### 2.6.1 Previous Experiences in Indonesia

The Government of Australia (GOA) has a long history of supporting the water and sanitation sector in Indonesia.

The GOA was at the forefront of introducing community-based WSS through its AusAID-funded Water and Sanitation Policy Formulation and Action Planning (WASPOLA) programme (1999 – 2009) and assisted the GOI to develop and introduce the first community-based WSS policy framework (2003). Further, the GOA contributed to the preparation and implementation of the WSLIC-2 that commenced in 2001, and it was the lessons learned from WSLIC-2 that provided a strong foundation for scaling up the CDD approach in PAMSIMAS.

Couple these experiences (and many others) with the importance that the GOA places on gender equality, disability and social inclusion in its development work, DFAT's involvement is not only relevant but highly valued by key stakeholders in the pursuit of universal access to improved WASH across Indonesia.

### 2.6.2 Focus on Quality Delivery

The GOA through DFAT has a strong track record of supporting the software components of development programmes, including capacity building and TA, to ensure the highest possible quality of delivery. This is no more so than in PAMSIMAS, where it would have been very difficult for the GOI and the WB to achieve the level of financial support to these "soft" components of the programme without the flexibility afforded by DFAT's grants.

<sup>18</sup> The village of Kalikayan in Semarang District, Central Java was unable to develop a borehole with sufficient yield, but the PAMSIMS budget was insufficient to develop a surface water source some distance from the village. The village of Bermi in Demak District Central Java did not have sufficient budget to extend the power supply to the submersible pump so the completed water system has been inoperable since 2011.

Further, the grant fund also supported several important surveys and evaluations of PAMSIMAS that offered insights beyond the MIS data and opened opportunities for programme improvements.

### 2.6.3 Relevance of DID

The evaluation found the DID initiative to be a relevant and critical addition to PAMSIMAS towards achieving the programme's goal of water and sanitation for all. However, its initiation late in the programme has not allowed for its effective implementation that has compromised the accessibility of facilities built under DID. This is particularly the case for the capacity of facilitators and those involved in the programme to understand and apply the DID standards to build facilities. This also relates to the quality of engagement of people with disability and OPDs that is critical to ensure that planning identifies priorities for people with disability, the facilities are accessible and that people with disability are involved in and empowered through the process of influencing community development.

### 2.6.4 Relevance of DFAT's Attention to Gender Equality

The evaluation found that DFAT's encouragement to ensure gender equality through implementation was relevant and potentially contributed to a higher proportion in DFAT funded villages of females represented in PAMSIMAS facilitation. As DFAT has a strong focus on women's influence in decision-making there was potential for greater influence by DFAT if they tested strategies that helped facilitators to implement GAP requirements that were not fully implemented. This could have supported PAMSIMAS to generate evidence and learning, for example, on how to conduct women's focused discussions as part of the CAP/RKM and ProAksi PJM so that their meetings better influenced broader decision-making.

### 3. DEVELOPMENT RESULTS – PAMSIMAS PROGRAMME

This section gives a brief summary of the IET's findings on the development results of the parent PAMSIMAS programme, which addresses evaluation objective 2: *Evidence of broad development results of PAMSIMAS at the end of Phase 3* (see Section 1.1). A full account of these results can be found in Appendix 3.

Overall, and according to data held on the MIS, PAMSIMAS has met and exceeded all of the targets set for the results framework KPI. However, the IET have identified several areas of concern that appear to have been obscured by the optimistic view of success projected by the KPI data held on the MIS.

#### 3.1 WATER SUPPLY

##### 3.1.1 MIS Data

- Of 35,100<sup>19</sup> PAMSIMAS villages, 31,893 (90.9%) have fully functioning facilities; 1,805 (5.1%) partially functioning; 1,399 (4.0%) not functioning. Approximately three-quarters of all WSS are supplying water at less than installed capacity, not including the non-functioning villages.
- Collectively, 843,665 people are without PAMSIMAS water as a result of non-functional facilities, and a further 1,066,494 people are affected by poorly functioning WSS. So, almost 2 m people are poorly served by PAMSIMAS WSS.
- Bali is the only province with all water facilities functioning at more than 80% of installed capacity.
- MIS data indicates that the average water use as a function of installed capacity is 74%<sup>20</sup>. Crudely, this means that PAMSIMAS water facilities have the potential to serve a further 6.5 million people if all operated at installed capacity.
- Just 21.7% of villages have a water coverage of 80% or more. Significantly, 36.9% have 20% or less of the village community benefiting from PAMSIMAS water.
- 1,238 PAMSIMAS water sources have experienced diminished yield since their first use.

##### 3.1.2 Qualitative Data from the Fieldwork

- There are significant differences between the data held on the MIS and that collected during fieldwork in 42 villages.
- Almost every village visited that received water on a daily basis suffered shortages at peak periods (early morning and late afternoon) and during Ramadan and festive periods.
- More than half of all functioning WSS inspected during fieldwork were unable to meet household demands for basic domestic use. The majority of these were indicated on the MIS as functioning well at greater than 80% of installed capacity. According to the WB<sup>21</sup>, facilitators conducted quarterly checks in every PAMSIMAS village to assess the functionality of WSS and the number of beneficiaries and this was the case in every year of the programme. The IET's findings suggest that these three-monthly checks may not be supplying, in all cases, accurate data. This is concerning since the data supplied is used to update the Sustainability module on the MIS.
- Many villages with deep groundwater sources had noted a reduction in yield over time, which is due to a lowering of the water table. This is likely to continue to worsen unless there is increasing regulation of private wells being drilled.

##### 3.1.3 Quantitative Data from the HH Survey

The complete set of analysed HH survey data is presented in a separate document – *Volume 2 of the Final Independent Evaluation Report*.

- Overall, 76.2% of all 817 households have water available *all* or *most of the time*, which aligns well with the average water use data as a function of installed capacity from the MIS, which is approximately 74%.
- Most HHs have water available *all* or *most of the time* in Central Java (86.9%) and South Kalimantan (95.5%).
- Just 40% of HHs surveyed in NTT get water *all* or *most of the time*.

<sup>19</sup> This number of villages does not tally with the total village served by PAMSIMAS since several villages have not been entered into the Sustainability module of the MIS. So, when relating sustainability data with KPI or continuity data through Kode Desa and MS Access queries, only 35,100 villages have relational data.

<sup>20</sup>  $\sigma = \pm 0.23$ , or  $0.74 \pm 0.23$ . The standard deviation ( $\sigma$ ) is very high indicating that there is a very large spread of data around the mean.

<sup>21</sup> Private communication, 20/12/2022.

## 3.2 WATER QUALITY

### 3.2.1 MIS Data

- 25,917 (73.8%) KPSPAM had conducted water quality test and the results met the “air minum layak” standard<sup>22</sup>.
- 3,241 (9.2%) KPSPAM had tested the quality of water and it did not meet the required standard.
- 5,892 (16.8%) KPSPAM had never conducted water quality tests<sup>23</sup>.
- About 240 (0.7%) of villages indicated that their water treatment went beyond rudimentary coagulation and filtration by applying a range of physical, chemical and biological means of treating water, including disinfection/chlorination, treatment to control iron (aeration and zeolite), slow sand filtration, ultraviolet filters, and reverse osmosis.
- 1,046 water sources have experienced a reduction in water quality.
- Significantly, every province involved in PAMSIMAS recorded at least 1 source of water with diminishing quality.

### 3.2.2 Quantitative Data from the HH Survey

- Of all 817 respondents of the HH survey accessing PAMSIMAS water, 537 (65.7%) indicated that they used the water for drinking.
- The largest proportion of HHs drinking the water was in NTT (99.6% - all but one respondent) and least in Central Java (37.8%).
- There appears to be a strong association between the availability and affordability of alternative sources of drinking water and the proportion of households that drink PAMSIMAS water: despite the more affluent Central Java having the highest quality of water (see Appendix 3, *embedded file 1*), fewer households drunk PAMSIMAS water there than in the two other provinces.
- Of the 537 HH that used the water for drinking, 514 (95.7%) boiled it first.

### 3.2.3 Water Quality Test Results

Water samples were taken in 36 villages, including 5 schools in NTT and 1 in Central Java:

- 5 met quality standards for drinking water (Ministry of Health regulation no 492, 2010), which were 2 in Central Java (Gogodalem and Tunggu) and 3 in NTT (Busalangga Timur, Lekunik, and Loleoen). The sources were from deep wells/boreholes and one spring.
- All but two water samples were found to fulfil “air minum layak” – safe to drink if boiled first.
- The two samples that were deemed unsafe to drink even after boiling were the water tested from Sungai Lumbah, which had a pH of 4.5, and Handil Negara with high ammonia, both in South Kalimantan. These are likely to be caused by a combination of agricultural and small-scale mining runoff.

## 3.3 IMPROVED SANITATION

### 3.3.1 MIS Data

- No province has reached a mean coverage of improved sanitation beyond about 44% and there are some provinces, such as Bali and DI Yogyakarta, in which villages are very far behind at less than 10% coverage.
- A simple log-linear regression model of sanitation coverage for each year of the programme predicts that if hygiene and sanitation socialisation continue in the same form and at the same intensity - and all other internal and external influences remain as at the time of writing, it would take a further 10 years to 2033 for all PAMSIMAS villages to reach 100% coverage of improved sanitation.

### 3.3.2 Quantitative Data from the HH Survey

- Of the HH survey's 830 respondents, 185 (22.3%) indicated they had improved sanitation associated with the programme: 178 (96.2%) households in South Kalimantan; 7 (3.8%) in Central Java, and none in NTT.

<sup>22</sup> Air minum layak is defined as water that requires only one step of treatment at household level to make it safe for drinking. Household level water treatment could be through boiling, filtration, disinfection, etc., although in Indonesia boiling is the most common method.

<sup>23</sup> A further 50 villages had no data.



- This result appears odd since information collected during the fieldwork indicated that there was almost 100% coverage of private toilets in all the villages surveyed in Central Java and South Kalimantan, and across some villages in NTT.
- However, 93.2% of all respondents using an improved sanitation facility at the time of the survey, indicated that they had this facility before the programme.
- The lack of comprehensive baseline data<sup>24</sup> on sanitation and hygiene behaviours means that it would not be sound to attribute all these improvements to PAMSIMAS or the supporting STBM programme.

## 3.4 HYGIENE BEHAVIOURS

### 3.4.1 MIS Data

- 82% of all PAMSIMAS villages have reached ODF status.
- Handwashing Programmes have been adopted by 92% of all PAMSIMAS villages.
- Sanitation facilities & hygiene programmes have been integrated into 97% of targeted schools.

### 3.4.2 Qualitative Data from the Fieldwork

- FGDs with all village communities demonstrated a high-level understanding of good hygiene practices, including key times for handwashing, and always using soap.
- However, women often quipped about the men resisting change and continuing with poor hygiene practices. It was noted during the fieldwork that men had been largely overlooked during hygiene socialisation and this is viewed as a missed opportunity.

### 3.4.3 Quantitative Data from the HH Survey

- 70.1% ( $n=582$ ) of homes were confirmed to have water for handwashing, either a tap inside the home or outside with running water, or mobile container in or outside the home.
- All respondents ( $n=323$ ) in South Kalimantan and 97.7% ( $n=253$ ) in Central Java were confirmed to have handwashing facilities. Only 2.8% ( $n=7$ ) of respondents in NTT were seen to have handwashing facilities.
- Hygiene behaviours are poorest in NTT. Of the 248 respondents across the 12 villages covered by the HH survey in NTT, only 7 (2.8%) had water for handwashing and of these 6 were observed to have soap available.
- South Kalimantan has the most widespread good hygiene practices. Here, 98.5% ( $n=318$ ) of respondents were seen to have soap available for handwashing.
- Results from Central Java showed that 79.4% ( $n=200$ ) of households had soap at their handwashing facilities.
- FGD with communities in South Kalimantan revealed that good hygiene behaviours had been adopted widely before the PAMSIMAS programme started in their villages.

## 3.5 WSS MANAGEMENT & FINANCING

### 3.5.1 MIS Data –KPSPAM Management and Tariffs

- 4,589 KPSPAM (13.1%) charged a monthly tariff based on metered use.
- 19,330 (55.1%) charged a fixed monthly fee.
- 8,760 (25.0%) reached out to their communities for contributions when required, and
- 2,421 (6.9%) had no charge and received no financial support from their communities.
- KPSPAM that either reach out to communities when required or get no community financial support constitute one-third of all water management groups.
- The highest performing province is Bali with 97% of its KPSPAMs breaking even or better in terms of tariff income to O&M expenditure.
- Others are close behind, such as Lampung (93.5%), and DI Yogyakarta (92.6%).
- There are 13 provinces that have less than 60% of their KPSPAMs breaking even.
- Papua Barat is an extreme case that has just 20% of its KPSPAMs managing well financially.

<sup>24</sup> IMAS was conducted using social mapping for the key purpose supporting the development of CAPs and is not considered as an accurate baseline representation for WATSAN facilities and there is no evidence that IMAS collected information on hygiene behaviours (see embedded file 1 in Appendix 3 for a full discussion on IMAS and social mapping).

## 4. DEVELOPMENT RESULTS – DFAT’S CONTRIBUTION

### BOX 4.1: FINAL DETERMINATION ON THE EFFECTIVE OF DFAT’S SUPPORT TO PAMSIMAS

- MIS data indicates that:
  - DFAT grant funds have supported over 5 million people (12% of total) to gain access to improved WATSAN.
  - The proportion of villages with improved WATSAN coverage of greater than 80% is higher in DFAT-funded villages than the national average.
  - Female participation in PAMSIMAS is higher in DFAT-funded villages than the national average figures, which is likely to have contributed to the higher WATSAN coverage.
- DFAT has contributed significantly to the quality of delivery; to the intensity of support necessary for a successful CDD approach; and to strategic elements, including gender sensitive & disability inclusive programming.
- DFAT’s DID initiative met with challenges in developing infrastructure that fulfilled the DID technical guidelines. However, the initiative has elevated the awareness and the means to achieve inclusivity in WATSAN and village development more generally.
- Weaknesses in the results framework and monitoring data has resulted in an over optimistic view of the parent programme’s effectiveness, including DFAT-funded villages. This has served to mask deficits in WSS functionality and sustainability, and their abilities to supply adequate water to meet basic household daily needs.
- Evidence of improved sanitation and good hygiene behaviours is weaker due to lack of comprehensive of baseline data and the difficulty attributing any changes to PAMSIMAS, given the number of actors operating in this space.

### 4.1 EFFECTIVENESS

DFAT, as co-financiers and partners has been involved in PAMSIMAS from its inception and brought considerable experience and expertise in the WATSAN sectors in Indonesia to the programme. DFAT’s financial contribution, in the form of grants, has been approximately AUD124 million<sup>25</sup>, or 6% of the total investment. DFAT’s grants provided assistance to the GOI to improve local level capacity in the planning, design and financing of water, sanitation (and slum upgrading projects) and to mainstream gender equality, Disability Inclusive Development (DID) and innovative technologies. For this evaluation, DFAT’s contribution has been placed into three categories:

1. **Expanding Reach** – Direct contribution to improved water and sanitation services.
2. **Improving quality & Influencing Delivery** – Indirect contribution via technical assistance.
3. **Influencing Strategy** – Strategic contribution via opportunities to influence the WASH sector nationally.

These are addressed in turn, below.

#### 4.1.1 Expanding Reach – WATSAN

DFAT funds have supported 3,346 villages (2008-2021) in 29 of the 33 provinces via block grants for water projects and post construction renovations of WSS, and for improved sanitation facilities. There are a further 54 villages<sup>26</sup> that have received DFAT block grants in 2022 but these have yet to be entered into the MIS sustainability module.

According to the MIS, and as a direct result of DFATs’ support, **2,628,313 additional people** gained access to improved water sources (KPI 1) and **2,437,200 additional people** accessed improved sanitation facilities (KPI 2).

Comparing these figures with those for the whole programme shows that DFAT’s contribution benefited 12% of the total population with improved WATSAN, and that this was achieved through just 6% of the programme’s total cost.

DFAT achieved this through a strategic approach to its involvement in PAMSIMAS, in which it transferred the lead on administering its finances to the WB, which already had protocols and resources in place for this. In doing so, DFAT not only maximised the impact of its financial contribution but enabled it to focus on influencing aspects of the programme to improve its overall effectiveness, such as gender equality and disability inclusive WATSAN.

#### *Water*

No significant difference was found for functionality of WSS or overall coverage of improved water between DFAT-funded villages and the whole programme. However, the proportion of villages with 80% coverage or more is 15.2% higher in DFAT villages than the national average, and this might be a result of higher women’s participation in DFAT-funded villages (see Section 4.2 for more details). Further, some differences have been identified in DFAT’s DID villages and these are addressed after *Sanitation & Hygiene*, below.

<sup>25</sup> AUD 10 million of this was allocated to the National Slum Upgrading Project (NSUP) or Kota Tanpa Kumuh (KOTAKU).

<sup>26</sup> This is either 54 or 79 villages yet to be entered into the sustainability module. The list supplied by the WB indicates 54 but MIS 79.

### Sanitation & Hygiene

There is no significant difference in the sanitation and hygiene related KPI between DFAT villages and nationally, as shown in Table 4.1. Further there are no difference when comparing each phase of the programme.

However, and as was the case with water coverage, DFAT-funded villages have a significantly higher proportion of villages with a sanitation coverage of 80% or more – 8.7%, which is 1.7 times greater than the national figure of 5.5%. As with water coverage, this result could be due to the higher female participation in DFAT villages.

**Table 4.1: Comparison of DFAT Villages and the National Programme – KPI 2, 13, 14 & 15**

Key Performance Indicator	DFAT	Nationally
KPI 2/village population – Mean percentage coverage of improved sanitation	27.9%	24.7%
KPI 13 – Percentage of villages declaring open defecation free (ODF)	83.7%	82.5%
KPI 14 – Percentage of villages adopting handwashing programmes	93.4%	92.4%
KPI 15 – Percentage of schools targeted have improved WATSAN facilities & hygiene programmes	96.5%	96.6%

### DFAT Villages with DID Programmes

The purpose of DFAT's DID programme was to support villages and schools to instal fully accessible WATSAN facilities. While the focus was to improve access for people with disability, it expanded reach to the whole village and school communities. The benefits to people with disability are explored in Section 4.3, below, but what of the benefits to the wider population?

Using the list of DID villages for 2019-2021<sup>27</sup> and the Sustainability and KPI 1 module (access to water) of the MIS, the coverage of improved water sources in DID villages can be determined. In DID villages where DFAT had supported the construction of public taps (faucets), the average coverage using MIS data is 48%, which is very similar to the average coverage for the parent programme of 43%. However, in DID villages with public hydrants installed the average coverage of water is 61%, more than two-fifths higher than the national average.

In terms of sanitation (KPI 2), one might anticipate that improved sanitation and handwashing facility in schools of DID villages would catalyse households with school children to improve domestic sanitation facilities, and this might have an influential effect on the wider community. However, the MIS data does not support this supposition since DID villages that have schools with new toilet and handwashing facilities (and handwashing programmes), have an average improved sanitation coverage of 20%, which is almost one-third lower than the national average of 29%.

### 4.1.2 Improving Quality & Influencing Delivery

DFAT's grants have been highly appreciated by WB and GOI since they offered the flexibility to finance activities that could not be covered or fully covered by the WB loan especially TA activities, including capacity building. The grant funds also enabled the programme to pilot DFAT's DID programme (see Section 4.3) so that these new approaches could be tested before they were taken to scale, and piloting innovative, affordable and adaptable technologies, for example, a mobile app for MIS data entry and complaints handling.

Grant funds have been directed towards supporting several foundational TA and capacity developments of PAMSIMAS, many of which may have received less emphasis without the involvement of DFAT:

- Training to Community Facilitators in the preparation of Community Action Plans – **Community Facilitators proved to be instrumental in supporting villages to achieve success.**
- Technical training to trainers in Methodology for Participatory Assessment (MPA) and Community Led Total Sanitation (CLTS) – **the CLTS approach has been embedded into the national STBM programme.**
- Provision of grants for villages meeting/exceeding performance – **these have supported expansion of WSS.**
- Financing the National Management Consultant (NMC) to support overall project management and implementation – **NMC have also spearheaded the validation of data held on the MIS.**

DFAT's grants have also funded the following key personnel:

• PAMSIMAS implementation adviser	• Procurement and safeguard adviser
• M&E baseline survey & impact evaluation consultant	• CLTS programme specialist
• MIS/knowledge management specialist	• MPA/PHAST specialist
• Community hygiene & sanitation behaviour change specialist	• Community facilitators

<sup>27</sup> This list was supplied by the WB that informed the IET that data for year's previous, including the pilot, had not been entered into the MIS.

While there appears to have been no assessment conducted on the quality of TA or capacity building support to the various programme elements, there are several proxy indicators of their effectiveness. For example, the number of villages developing CAPs (KPI 4); percent of districts with project monitoring structure and tools in place (KPI 16); and the number of villages/percentage of districts that exceeded project performance criteria and received supplementary grants (KPI 11 and 12). As with other KPI, these proxy indicators of the quality of inputs supported by DFAT have exceeded their targets.

In summary, through the flexibility in its grants and emphasis on the software elements of PAMSIMAS- particularly in phase 3, DFAT has played a pivotal role in ensuring high quality inputs and activities and has made significant headway, by emphasising gender and disability sensitive programming, in steering PAMSIMAS towards becoming a fully inclusive programme. Similar sentiments were expressed in the WB's interim report on DFAT's Trust Fund.<sup>28</sup>

### 4.1.3 Influencing Strategy

The Australian government has supported efforts to improve rural water supply and sanitation in Indonesia for 40 years. DFAT played a significant role in the forerunner of PAMSIMAS, the Water and Sanitation for Low-Income Communities programme (WSLIC) via grants for TA. Throughout the Australian government's involvement in Indonesia, high on the agenda has been the form of delivery to ensure that programmes are participatory, gender sensitive, and sustainable. These influencing efforts have been met with a great deal of success, for example, in WASPOLA, sAIG, and WSLIC programmes.

In PAMSIMAS, DFAT carried over its commitment to gender equality and the importance of ensuring women are represented in facilitation and made efforts in all engagement at central and subnational levels to ensure training was provided on gender equality and gender sensitive programming, and to encourage involvement of women at all levels and in all aspects of the programme.

The contribution made by DFAT to introduce the DID pilot to construct accessible WATSAN, and subsequent scale-up to over 10,000 villages, and development of guidelines and standards, is the most tangible example of the Australian government influence on strategy and delivery in the PAMSIMAS programme. Although there were some issues with the quality of infrastructure, this initiative increased awareness and commitment to work towards accessible facilities. DFAT's contribution to gender equality and disability inclusion warrant separate discussions and these are found in Sections 4.2 and 4.3.

It is the IET's view that PAMSIMAS has positively influenced the WASH sector nationally, by demonstrating the effectiveness of the CDD approach; gender-sensitive programming; fully inclusive WATSAN facilities; CLTS; PHAST; and MPA. And DFAT has played a substantial role in bringing about these beneficial changes.

## 4.2 GENDER EQUALITY & WOMEN'S PARTICIPATION

PAMSIMAS SOPs for Gender Mainstreaming and their accompanying Gender Action Plan (GAP) provided sufficient guidance and outlined strong commitment to promote gender equality and women's participation in the programme. However, the MIS focused primarily on gathering quantitative data (number of women participating and represented in facilitation) and therefore limited data was gathered in a systematic way on quality of women's engagement and extent of empowerment. Gender-based indicators were disseminated to programme managers on a regular basis and training on gender equality was provided during inductions for all programme actors, with annual refresher training. DFAT was active throughout the life of PAMSIMAS encouraging a focus on gender equality through their engagement and evaluation at central and subnational levels.

It has been reported that female participation in PAMSIMAS is higher in DFAT funded villages than the national programme average<sup>29</sup>. Closer scrutiny of IET's limited gender disaggregated data for representation in KPSPAM, for example, does indeed reveal a higher female membership in DFAT-funded villages than the national average:

- The average participation of women in KPSPAM across DFAT-funded villages in Gorontalo, Kalimantan Tengah, Sulawesi Utara provinces is 47%, compared to the average for the whole programme of 31.5%.
- Women in the leadership roles in DFAT-funded villages is 13% of KPSPAM, whereas it is just 8.4% for all villages in these three provinces, which is almost half that of DFAT villages.
- Female KPSPAM leadership in these DFAT-funded villages is 6-times higher than the national average.

While the delivery of PAMSIMAS in DFAT-funded villages followed the same protocols as all others, DFAT noted to the IET that they made local facilitators aware of the source of funding and DFAT's commitment to gender equality

<sup>28</sup> Interim Implementation Completion and Results Report: PAMSIMAS Support Trust Fund, TF094792, WB, 2018

<sup>29</sup> Annual Investment Monitoring Report (AIMR), 2022, INM-115, DFAT

during field visits. This may have contributed to a greater commitment to gender equality, however, the IET was not able to confirm this in the sample villages visited. The data used in this analysis is from a small sample of villages, and further research is therefore required to better understand the increased proportion of females represented. Further, because of the focus of the GOI on coverage of improved water and sanitation in relation to SDG targets and the WB's loan with emphasis on hardware, it is unlikely that gender equality issues would have gained so much traction without DFAT's involvement in PAMSIMAS.

### 4.3 DISABILITY INCLUSION

In comparison to the extent of focus on gender equality in the PAMSIMAS guidelines and procedures, disability inclusion, and the construction of accessible facilities, was absent in PAMSIMAS I and II; initiated by DFAT only during PAMSIMAS III. The PAMSIMAS GAPS that remained consistent throughout the programme referred to social inclusion but did not specifically mention people with disability or accessible facilities. In 2016, DFAT introduced the Disability Inclusive Design (DID) inviting the Christian Blind Mission (CBM) to conduct disability-inclusive WASH training for central government stakeholders and provincial facilitators. The DID was then implemented in 2017 in 59 pilot villages in 26 districts. This involved developing technical designs and constructing accessible WASH facilities. The review found these guidelines and the approach to be well developed. Key to this approach was the intended involvement of people with disability from design to construction and maintenance.

Community facilitators were trained to deliver the DID and involve people with disability in the process. Further, the project included an option to subsidise water tariffs for people with disability and the elderly noting that they tended to pay more for health services and transportation and face barriers to education and employment opportunities (WB Water Knowledge Note on Disability Inclusion). In 2018, DID was rolled out as mandatory to all PAMSIMAS locations to be implemented utilising a portion of the PAMSIMAS block grants. Villages were required to use the DID standards in their design and construction of accessible facilities.

The IET are in no doubt that disability inclusion would have remained a side issue without the work of DFAT in developing, piloting and cascading the DID elements into PAMSIMAS. Whether the focus on disability inclusion and accessible WATSAN will continue at this level in any future programme is unclear.

#### 4.3.1 Accessible Infrastructure

DID resulted in a total of 10,676 villages constructing facilities reportedly using the DID standards during PAMSIMAS III. This exceeded the programme target of 10,000 villages by 2021. This indicates that the socialisation to raise awareness about the availability of the DID and requirements to use them was effective. It also indicates a willingness of villages to use their resources to construct facilities to meet the needs of people with disabilities. These facilities consisted of public taps (5,245 units in 2,731 villages), public hydrants (2,570 units in 1,252 villages), school handwashing (16,158 units in 8,456 villages), and school toilets (5,179 units in 4,590 villages)<sup>30</sup>. At the end of 2021, around 475,500 people with disabilities were recorded in all PAMSIMAS locations (both loans and DFAT locations), of which 181,500 had reportedly received benefits from the projects' assistance. The Interim Evaluation Study 2019 assessed that, of their sample group, the households with members who had a disability were well-represented in reporting improved sanitation. Of those with a disability, 11% had a sanitary toilet, compared to 3% of those without a disability. The evaluation concluded that the programme had made positive progress to provide access to sanitation for those with disabilities.

Despite efforts to construct accessible facilities, DID villages faced challenges in meeting accessibility standards. In 2017 an evaluation of the initial DID pilot surfaced several challenges with implementation. These included low facilitation skills of community facilitators and an absence of a common understanding of disability inclusion among community members. The evaluation also noted a lack of confidence among people with disability involved, and that the development of accessible facilities was insufficient (WB Water Knowledge Note on Disability Inclusion).

As part of the IET, PPDI conducted field assessments of accessible facilities built in 5 DID villages in 3 districts in Central Java, and other IET members made assessments in 5 DID villages in NTT and 2 in South Kalimantan, and the results are shown in Appendix 4 as *embedded file 1*. Of these 12, only 4 "accessible facilities" (33%) were confirmed by PPDI and the IET as accessible.<sup>31</sup> It was also reported by communities that 3 of these 4 facilities had never been used.<sup>32</sup> Examples of the other 8 facilities assessed that did not meet accessibility standards included: the door width on toilet facilities being too narrow for wheelchair access, handrails not sturdy causing safety issues or too far to be of use, lack of ramps, slippery surfaces in toilet facilities, accessibility and dimensions of space around toilet facilities

<sup>30</sup> DFAT TF-072765 2021, Annual Report Support for the Third Water Supply and Sanitation for Low Income Communities (PAMSIMAS) and the National Slum Upgrading Programme: 1 Jan– 31 Dec 2021. The WB Task Team for PAMSIMAS and KOTAKU

<sup>31</sup> These were: 1 school wash basin in Bermi Village in Central Java, 1 public tap in each of Kestnana, Tublopo, and Oelbubuk in NTT.

<sup>32</sup> These were: 1 public tap in Kestnana Village, 1 public tap in Tublopo Village, and 1 public tap in Oelbubuk Village in NTT Province.

do not enable a wheelchair to move easily. Facilitators interviewed by the IET noted that they had received one training session, but this was not sufficient for them to understand how to use the DID SOPs, and how to supervise and provide inputs to accessible design<sup>33</sup>.

The challenges with implementation and meeting DID standards were further constrained by the lack of involvement of people with disabilities and Organisations of People with Disability (OPDs). The DID SOP required the involvement of people with disability and OPDs in all stages of PAMSIMAS DID<sup>34</sup>. However, the DID pilot evaluation found a lack of confidence of people with disability involved and noted the need to improve their participation. PPDI confirmed this finding, speaking with people with disability in the community who had never been invited to attend a PAMSIMAS meeting. Those interviewed in Tambakselo Village, Grobogan District felt this was “**the way things were**” and did not want to **cause trouble**’ in the village by asking to be more involved in village development. PPDI also found that local government and facilitators lacked the networks to be able to identify and effectively engage people with disability and OPDs. No examples were found in field locations visited in Central Java, South Kalimantan and Nusa Tenggara Timur of the involvement of OPDs in PAMSIMAS or the DID. Barriers also exist where communities believe they can effectively represent people with disability. During an assessment of a toilet and washbasin in Pamongan Village, Demak District, the village community members tried to demonstrate to PPDI how the facilities were accessible “*if used like this*” after PPDI noted the facility was not accessible. This indicated a lack of awareness of the importance of involving people with disability to achieve accessibility.

#### BOX 4.2: FINAL DETERMINATION ON THE EFFICIENCY OF DFAT’S SUPPORT TO PAMSIMAS

- Pro rata, DFAT’s financial support of USD 98.2 m has leveraged about USD 157 m (1.6 times the investment) from government, community and CSR sources.
- DFAT’s financial contribution represented excellent value for money with 6% of total programme expenditure generating WASH benefits for 12% of the total PAMSIMAS population supported.
- DFAT’s grant funding was able to support activities that would have been more difficult to implement using loan funds or GOI/LG financing, such as software developments including capacity building and TA. And since grant funds were administered by the WB, this was a highly cost-efficient and effective means of support from DFAT.
- Like the parent programme, in DFAT-funded villages there are questions around the reported number of people benefiting from water supplies that meet basic household needs. This raises doubts on the programme’s high EIRR reported by the WB of 36.1%.
- Similarly, doubts are raised about the number of people with disability benefiting from fully accessible WATSAN infrastructure, as reported by the MIS (181,500) and, therefore, the economic efficiency and effectiveness of the DID. In the IET’s survey of 5 DID villages, just 4 of the 12 WATSAN facilities examined were found to be “fully accessible” and only 1 of these had ever been used.

## 4.4 EFFICIENCY

### 4.4.1 Extent WB Loan & DFAT Grants has Leveraged other Funding Sources

The definition of leverage by both WB and DFAT, as far as the PAMSIMAS programme is concerned, is the total amount of funding provided to the programme from sources other than the WB loan and DFAT grant. On this basis the programme can be seen to be highly successful in leveraging funding from sources including:

- APBN (State Budget)
- APBD (Regional Revenue & Expenditure Budget)
- Collaboration with HAMP (Rural Water Grant), DAK (Special Allocation Funds) and other GOI financing.
- CSR (Private sector Corporate Social Responsibility funding)
- APBDesa (Village Budget)
- Community Contribution

The total amount of local funding leveraged by the USD 646.30 million WB and DFAT financing was USD 1.022 billion or a ratio of 1.6. The WB and DFAT financing also helped to promote improved coordination between BAPPENAS, the Ministry of Public Works and Housing (MOPWH), the Ministry of Health (MOH), the Ministry of Home Affairs (MOHA) and the MVDDRT in the planning and implementation of rural water supply and sanitation programmes. A full breakdown of the current expenditure from WB grants and loans and DFAT grants compared with APBN, APBD, APBDesa, community and CSR funding is shown Table A.4.1 of Appendix 4.

<sup>33</sup> Recorded in Cukilan & Gogodalem villages in Semarang, Tambakselo & Tunggu Village in Grobogan & Pamongan Village in Demak.

<sup>34</sup> DID SOP, 2018, p. 7

#### 4.4.2 Extent to Which the Total Cost of PAMSIMAS is Justifiable

Of the 5 activity components for all three phases of PAMSIMAS, the component with the largest expenditure was **3: Water Supply & Public Sanitation Infrastructure** at USD 928.9 million; and component **2: Improving Sanitation & Hygiene Practices** cost least at USD 95.2 million. A full breakdown of each component's cost and source of funding is shown in Table A.4.2 of Appendix 4.

##### *Achievements of Project Objectives*

The objective of the PAMSIMAS III programme is to increase the number of under-served rural and peri-urban populations accessing sustainable water supply and sanitation services as measured against 16 KPIs. According to MIS data, all KPI targets were achieved by December 2021.<sup>35</sup> Section 4.1 contains further discussions on achievement of the KPIs. However, based on the results available from the PAMSIMAS MIS as reported in the Completion Reports and the budget realisation discussed below, the programme appears to have achieved its objectives efficiently.

However, when issues identified in this evaluation relating to MIS data anomalies; the narrow definition of WSS functionality that tends to overinflate the number of fully functioning WSS; and some concerns over sustainability of WSS that are likely to be masked by the MIS data are factored into this analysis, the only conclusion to come to is that the improved water supply component of PAMSIMAS (about 60% of the programme costs) has been less cost-efficient than previously reported (see *Economic Viability*, below).

The PAMSIMAS Beneficiary Survey conducted in 2018<sup>36</sup> concluded that PAMSIMAS has significantly changed the behaviour of people using toilets at home, with households being able to build or renovate latrines after water-supply connections from PAMSIMAS. The survey indicated that 100% of facilities now have water available at the toilet, 93% of toilets have adjacent hand washing facilities, and 73% have soap available in the washroom.

However, the same survey reported that *"Data on sanitation access has not been well recorded in the MIS"*; *"Regular monitoring of latrine use is formally the responsibility of the sanitarian, however not all sanitarians have been active in data collection"*; and that *"health promotion activities channelled through PAMSIMAS were incomplete"*. It is not surprising, therefore, that discrepancies exist between the beneficiary survey and the IET's current survey, and data held on the MIS regarding improved sanitation and hygiene practices. Further, while the current HH survey was not as geographically extensive as the beneficiary survey, it collected data randomly on twice as many households as the beneficiary survey (830 compared to about 400).

These discrepancies and weaknesses regarding sanitation and hygiene baselining and monitoring bring into questions the cost-efficiency of this area of the programme, too. While it comprises about 6% of the total programme costs, improved sanitation and hygiene are critical factors influencing the higher-level outcomes.

##### *Infrastructure Per Capita Cost*

The infrastructure cost was USD 1.166 billion which represents USD 47 per capita for water supply and sanitation infrastructure constructed. Quality of construction also should be considered when making cost comparisons with other similar programmes and this is discussed further under the sustainability section. However, the consensus in discussions with village officials and KPSPAMs during the evaluation was that construction quality was good, notwithstanding that much of the pipeline construction was undertaken by the village communities.

The estimated capital cost for rural water supply projects based on the National Socio-Economic Survey (SUSENAS) data was reported in 2006 to be USD 36 per capita<sup>37</sup> so the estimated capital cost of USD 47/capita for PAMSIMAS during the period 2008-2021 compares favourably. Furthermore, the ADB supported Central Region Rural Water Supply and Sanitation Project in Vietnam<sup>38</sup> which was implemented between 2009 and 2018 averaged a capital cost of USD107/capita. Again, PAMSIMAS costs compare favourably with this project which was implemented during the same time period.

The average cost per connection was estimated at USD 190, less than 35% of the reported connection cost for a typical PDAM connection. This was verified in discussions with KPSPAMs at the villages visited during the evaluation. The cost/connection for the Central Region Rural Water Supply and Sanitation Project in Vietnam was reported to be USD 475<sup>39</sup>.

<sup>35</sup> Project Completion Report for PAMSIMAS Programme, World Bank, December 2021

<sup>36</sup> PAMSIMAS Beneficiary Survey, World Bank, 2018

<sup>37</sup> Project Appraisal Document PAMSIMAS 1, World Bank January 2006

<sup>38</sup> Project Completion Report, Central Region Water Supply and Sanitation Project, Asian Development Bank, 2018

<sup>39</sup> Private communication with the project's senior consultant, 11/12/2022

### *Economic Viability*

The Economic Internal Rate of Return (EIRR) for the programme (PAMSIMAS I and II) was estimated at 44% or 36.1% considering the non-functioning and partially functioning systems<sup>40</sup> based on a sample of 77 fully operational WSS and used proportions of partially and non-functioning WSS provided by MIS data.<sup>41</sup> This was considered to be comparable to other community driven water supply and sanitation programmes implemented in Indonesia. Furthermore, a project is considered viable if the EIRR is greater than the Weighted Average Cost of Capital (WACC) or the discount rate which for project economic viability considerations, the Asian Development Bank (ADB) and WB use 12%<sup>42</sup>. On this basis, PAMSIMAS can be considered as an economically viable programme. For comparison, the WSLIC EIRR was reported in the PAMSIMAS I Project Appraisal Report to be 35% and the EIRR for the Central Region Rural Water and Sanitation Project in Vietnam was 24.6%.

However, it is likely that the EIRR has been skewed upwards for PAMSIMAS since the IET feel that the MIS does not reflect the true proportion of partially functioning or non-functioning WSS. The IET found that 14 (33%) of the 42 WSS surveyed were partially functioning and 5 (12%) were not functioning. At the time of the WB's EIRR analysis (2015), the MIS indicated that 20% of WSS were partially functioning and 7% did not function. Crudely, using weighted averages of differences to update the EIRR to reflect the IET's 42 village sample, gives an EIRR of 30.8%. While still considerably above the 12% benchmark, this is below the reported WSLIC EIRR.

In addition to EIRR, the World Bank/CPMU conducted a Programme Cost-Benefit Analysis to determine the economic impact caused by the implementation of the PAMSIMAS III programme.<sup>43</sup> A rapid survey was conducted in early January 2022 by the CPMU through online questionnaires to 200 KPSPAM and 1,000 household respondents spread over 200 villages in 10 provinces. The survey used stratified random sampling at PAMSIMAS III locations with respondents from villages with water supply systems that functioned well and had water tariffs. The cost-benefit analysis was carried out by calculating the ratio of the Amount of Water Supply Contribution Receipts and the Operational and Maintenance Cost of water supply carried out by KPSPAM in a period of one year. The value obtained through this analysis was 1.78 or >1, meaning that there is an increase in community income obtained from the acceptance of water supply management from PAMSIMAS. On average, KPSPAM income from community contributions is sufficient to finance the operation and maintenance costs, although there are KPSPAM that either do not charge tariffs or need to improve their contribution performance.

### *Budget and Budget Realisation*

The total disbursement for PAMSIMAS III up to the closing date of the loan on December 31, 2021, was USD 299.5 million or approximately 99.85% of the total loan of USD 300 million<sup>44</sup>. Disbursement and expenditure for the loan was close to budget for the period of PAMSIMAS III between 2016 and 2021 and for the earlier phases of the programme. Regarding the DFAT grant, by September 2017, a total of USD 66.29 million out of the PAMSIMAS budget of USD 90.4 million (or 73%) had been disbursed<sup>45</sup>.

The 2017 AQC reported that the WB suggested to DFAT that rather than expend all the funds by the end of 2017 (which they could do easily), they should consider deferring its use until Phase 3 to assist with capacity building. DFAT was reported to be satisfied with the disbursement of funds so far and agreed to the transfer. For PAMSIMAS III, a trust fund of USD 25.26 million was established to absorb the earlier DFAT grant and by December 2021 USD 22.10 million had been expended. DFAT contributed an additional AUD 10 million (USD 7.8 million) to PAMSIMAS III and by 31 December 2021, approximately 96% of DFAT's total contribution to PAMSIMAS had been disbursed/spent, with a remaining balance of USD 3.9 million. It was proposed that this balance will be utilised up to August 2022 for grants in selected villages, payment for consultants, and implementation of several workshops of programme management, audit reconciliation, and sustainability-related themes.

### *Infrastructure vs Capacity Building and Project Management*

The breakdown between provision of infrastructure and capacity building, consultancy and project management for all stages of PAMSIMAS was in the order of 70:30 (see Table A.4.2, Appendix 4). This appears high for a typical water supply and sanitation loan project whereby the allowance for capacity building may be in the order of 5% of total cost with further 5-10% for project management and construction supervision. However, PAMSIMAS could be considered a special situation due to several factors including the broad geographical coverage of the programme,

<sup>40</sup> Implementation Completion Report (ICR) Review, Independent Evaluation Group

<sup>41</sup> See Section on Sustainability for discussion on definition of partially functioning water supply systems.

<sup>42</sup> Ibid 38, p. 17

<sup>43</sup> Project Completion Report for PAMSIMAS Programme, World Bank, December 2021

<sup>44</sup> Ibid

<sup>45</sup> Implementation Completion Report (ICR) Review, Independent Evaluation Group



the need for intensive support activities at the village level to ensure adequate community participation, the focus on hygiene awareness promotion as opposed to large scale provision of sanitation facilities and the relatively small size of many of the community projects.

PAMSIMAS also demonstrated efficiency by minimising duplication and inefficiencies in project management through merging PAMSIMAS with the MOH STBM rural health project and by adopting PAMSIMAS as the national water supply and sanitation programme. Overall, under these circumstances and considering the relative low cost/connection of the water supply facilities, it is not considered that the proportion of the budget allocated to capacity building, project management and consultancy was excessive.

### *Benefits of DFAT Grant Funding*

The DFAT grant funding was approximately 6% of the total programme cost. While 65% of the budget was allocated to water supply and sanitation infrastructure, the remaining 35% provided for:

- Training of facilitators on CDD planning and management of WSS facilities.
- Provision of technical training for training of trainers in MPA/PHAST.
- Technical assistance in programme implementation, preparation of an M&E baseline, impact evaluation, community hygiene and sanitation behaviour change, CLTS and MPA/PHAST.
- Awareness raising on disability-inclusive development to be replicated by GOI.
- Support for implementation of gender inclusive policies.
- Piloting innovation in affordable technologies.

The DFAT grant funding was able to support activities that would have been more difficult to implement using loan funds or GOI/LG financing. Both GOI and the World Bank have consistently reiterated how much they appreciate the flexibility that DFAT's grant funding provided to the programme, and that the Australian government's contribution has been critical to the successful implementation of the PAMSIMAS programme. A detailed discussion of DFAT's contribution to PAMSIMAS can be found in Section 4.1, above.

### *Community Contribution*

A positive outcome of PAMSIMAS was the extent of community contribution achieved throughout the programme. The required community contribution was 20% of the budget or IDR 275 million allocated to each village comprising 4% in-cash and 16% in-kind which usually translated to community construction of some elements of the system such as pipelines. This was estimated to total USD 237 million for all three phases of the programme. Visits to villages by the IET confirmed that significant contributions were made by the villagers, although there were instances where the in-cash contributions were made using village funds.

Most of the villagers appeared happy to provide either in-cash or in-kind contributions within their capability, although there were a minority of village heads who believed that villagers did not have time to provide labour for project construction or who were unable to make cash contributions.

#### **BOX 4.3: FINAL DETERMINATION ON DFAT'S TRACKING OF RESULTS OF THE GRANT SUPPORT**

- DFAT focussed on tracking results through KPI 1, 2, 3, 4, 13, 14, and 15 from the parent programme's results framework. Therefore, the weaknesses identified in the results framework and the over-optimistic view of effectiveness and efficiency projected by MIS data has impacted on DFAT's view of the impact of its financial supportability and its ability to identify and proactively address issues.
- On gender equality, no data was gathered and analysed in a systematic way about the extent to which women influenced the programme and were empowered through its activities. Several surveys were conducted that offered insights on gender equality beyond participation. There is little evidence that the recommendations from these surveys on improving gender equality and the overall effectiveness of the programme were implemented. And there were no adjustments to the results framework to track the results of doing so.
- The MIS effectively captured quantitative data on DID (number of facilities and number of people with disability that could benefit) but did not collect any information on the quality of facilities and whether they conformed to DID standards and, therefore, the actual number of people with disability that are benefiting remains unknown.
- The spot-check instruments used for field audits also did not include a field of inquiry on DID quality and alignment with DID standards. Consequently, DFAT was not supplied with sufficient monitoring data to make informed decisions about this element of the programme.

## 4.5 MONITORING AND EVALUATION

This section considers the monitoring of performance and quality in respect of the three areas of DFAT's expected contribution to the programme, namely, **1. Expanding reach (direct contribution)**; **2. Improving quality and Influencing Delivery (indirect contribution)**; and **3. Influencing Strategy (strategic contribution)**.

### 4.5.1 Direct Contribution

A full account of M&E activities under DFAT's direct contribution to PAMSIMAS can be found in Appendix 4 as *embedded file 2*. The following is a summary of the key points.

Tracking of DFAT's direct contribution to PAMSIMAS was undertaken using the programme's M&E Systems and KPI. The WB, DFAT and the GOI are commended by the IET for their efforts in developing robust M&E systems – results framework with pertinent KPI; development of a comprehensive database (the MIS) holding information on all key performance indicators (KPI) and more that is publicly accessible from [PAMSIMAS MIS](#); systems to validate the accuracy of data collected at the local level; and the regular reporting and commissioning of reports on programme progress. Despite this, a number of limitations were identified during this evaluation, including:

- KPI do not reflect the higher outcome level (impacts), which are improved health, and increase human development and earning capacity as per the programme's theory of change (ToC)<sup>46</sup>. However, and despite the longevity of the programme, these higher-level outcomes have never been measured.
- The three PDO KPI are compound indicators, which require inputs on more than one theme and some degree of judgements rather than one specific measurement.
- KPI 1 and 3 are concerned with sustainability of improved water services, and includes technical, financial, and institutional aspects. However, financial and institutional indicators lie at the output-level (tariffs and workplans) and while **necessary** they are not **sufficient** to ensure sustainability of water services.
- On technical sustainability of WSS, the benchmark is systems operating at more than 80% of installed capacity, but this does not address the adequacy of supplies to households. Rather, this is the focus of KPI 10, but data is not captured routinely or widely on this indicator<sup>47</sup>. The upshot is, as discovered during fieldwork, that under the current framework WSS could be recorded as functioning well but not supplying water to meet basic household needs.
- The lack of comprehensive baseline data makes it difficult to attribute improvements in sanitation and hygiene to the PAMSIMAS programme (KPI 2 and 14). During their fieldwork, the IET identified several villages that had improved sanitation facilities and good hygiene practices before PAMSIMAS, but these appear to be attributed by MIS data to the programme.
- The monitoring tools did not capture data and information on the quality of women's involvement which meant that there was no data gathered and analysed in a systematic way about gender equality. The programme did, however, capture and analyse rich information related to gender equality beyond participation through several reviews and surveys during the lifetime of the programme.
- The programme effectively captured quantitative data on DID but did not track the quality and accessibility of facilities constructed. Further, the spot check instrument used for field audits also did not include a field of inquiry on DID quality and alignment with DID standards.

Some modest adjustments to PDO KPI could enhance the utility of the results framework and create a set of outcome indicators at the PDO-level within the structure of the current programme.

Consider deconstructing KPI 1 and 2 and creating two indicators from each: one at the output-level and one at outcome-level, as shown in Table 4.2. Use of outcome **KPI 1.a** removes the current challenges in defining what constitutes a fully functional water supply system and places it in the hands of the consumer. This outcome indicator could also be in the form of a revised version of KPI 10; as mentioned before this a well-defined sustainability outcome indicator in the current results framework and would have the same benefits in identifying the functionality of systems based on the demand-side. The revised **KPI 1.b** output indicator reflects much of the current KPI 1 data but is decoupled from the outcome of sustainability. Also consider decoupling the three sustainability elements of KPI 3 – technical, financial, and institutional – as shown in the table, below.

Concerns related to sustainability of sanitation infrastructure are poor design and construction and lack of access to septage management services (see Section 4.7.4). These were not the focus of PAMSIMAS but should be considered

<sup>46</sup> Interim Implementation Completion and Results Report, PAMSIMAS Support Trust Fund, TF094792, The World Bank, June 2018.

<sup>47</sup> KPI 10 percentages are widely report successes of PAMSIMAS but are based on samples of villages that are not statistically significant at 95% confidence interval and 5% margin of error; not wholly sampled randomly; and with only between 8 and 10 households surveyed per village, which the IET believe has led to an unrepresentative view of consumer satisfaction, WSS functionality, and potential for sustainability (see Appendix 4 and Section 1.1.3 for full details).

in future. The revised **KPI 2.a** factors in design and construction standards and the importance of septage management, both of which require greater emphasis in any future programming. The revised **KPI 2.b** output indicator reflects much of the current KPI 2 data but, like **KPI 1.b**, is decoupled from the outcome of sustainability.

**Table 4.2: Minor Adaptations to KPI 1, 2 and 3 to Enhance Utility of the Results Framework**

No.	Revised KPI	Definition	Benefits/Notes
1.	a. Outcome	Number of (additional) people that receive sufficient improved water supplies for all their household needs. OR Revised version of <b>KPI 10</b> : % of villages with improved water supply systems that meets household demands in full to the satisfaction of [90%] or more of the community	This would enable identification of WSS that under the current KPI that might be considered as "fully functional" but supply insufficient quantities of water to each household. This could be achieved through longitudinal studies of a cross-section of households or via an annual census conducted by KPSPAM and make separate studies by consultants unnecessary, as is currently the case for KPI 10.
1.	b. Output	Number of additional people with access to improved water facilities	This would remain much the same as the current KPI 1.
2.	a. Outcome	Number of (additional) people with improved sanitation facilities built to technical standards and with access to septage management services (if required)	This brings in the issue of the quality of infrastructure and sustainable septage management, which have not been considered in the current programme.
2.	b. Output	Number of additional people with access to improved sanitation facilities	This would remain much the same as the current KPI 2.
3.	a. Outcome	Identical to <b>KPI 1.a</b>	Relates to the aspect of technical sustainability, and finance and management sufficiency
3.	b. Output	Percent of KPSPAMS that have workplans and allied management, O&M, and financial protocols in place	This covers the outputs that are necessary (but not sufficient) for KPSPAMS to manage their WSS well. Sufficiency of management is tracked via KPI 3.a (≡ KPI 1.a)
3.	c. Output	Percent of KPSPAMS charging tariffs => CR	This covers the financial output necessary (but not sufficient) for KPSPAMS to operate, maintain, and sustain WSS. Financial sufficiency is tracked via KPI 3.a (≡ KPI 1.a)

### Gender-Related Monitoring

- The MIS collected & analysed sex-disaggregated data to track participation and representation in the KSPAMS.
- The GM SOPs set an expectation that the programme would gather data and information the quality of women's participation and their ability to influence decision-making. However, this was not included in the MIS, which meant that there was no data gathered and analysed in a systematic way about the extent to which women influenced the programme and empowered through its activities.
- The programme did, however, capture and analyse rich information related to gender equality beyond participation through several reviews and surveys during the lifetime of the programme.<sup>48</sup>
- There is little evidence however that recommendations made as a result of these reviews and surveys to improve implementation towards gender equality were addressed through PAMSIMAS iterations.

### Disability-Related Monitoring

- The MIS effectively captured quantitative data on DID. – number of facilities constructed and number of people with disability that potentially could benefit.
- Data was not captured on the quality of facilities built, and whether they met DID standards.
- The spot check instrument used for field audits also did not include a field of inquiry on DID quality and alignment with DID standards. This makes it difficult to determine how many people with disabilities now have the use of accessible facilities that meet DID standards, and impossible to draw judgement on the real benefits of the DID programme.

#### 4.5.2 Indirect Contribution

DFAT's indirect contribution to PAMSIMAS was made through financial support for TA, capacity building, quality assurance, key personnel salaries/wages, and several other activities, such as workshops.

<sup>48</sup> For example: the PAMSIMAS Impact Study (2013); the PAMSIMAS Beneficiary Study (2018); and the Gender Impact Study (2021).

DFAT's monitoring effort was focused on KPI 1, 2, and 3 (direct contribution); and KPI 4, 13, 14 (indirect), and 15 (mix of direct & indirect)<sup>49</sup>. However, since DFAT's grant funds were used to co-finance most of the components of PAMSIMAS<sup>50</sup> and these grants would have influenced most all aspects of programme (directly and indirectly), grant support is likely to have impact on all KPIs. It does not appear possible to single out specific KPIs that DFAT's indirect contribution would have had most influence on.

KPI 4 relates to the development of CAPs which is an output and since the IET have found no evidence of their implementation having been tracked, there is a danger that they may have been treated as a tick box exercise by communities<sup>51</sup>. KPI 13 relates to the achievement of ODF, which is difficult to track in the longer-term and there are risks of old habits returning as memories of hygiene socialisation fade<sup>52</sup>. Open defecation was identified via the IET's HH survey in some villages that are recorded as ODF on the MIS (see Appendix 3, *embedded file 1*, Section A.4.3.2). It is reported that ODF is monitored regularly by sub-district sanitarian and reported to district health agency and upload to the MIS, but this might be more reliably tracked by the PUSKESMAS. The same argument applies to handwashing programmes (KPI 14), which is also tracked by sub-district sanitarians.

The three KPIs – 13, 14 and 15 – sit mostly at the output level and there are no elements in the results framework that relate to higher-level outcomes in health, livelihoods, etc. As mentioned before, this is unfortunate since it is far easier to track these higher-level outcomes (and they more substantially point to programme success) than OD and whether households and children at school wash their hands at critical times using soap and water.

### 4.5.3 Strategic Contribution

Formal monitoring of DFAT's strategic contributions was not necessary since their outcomes were highly visible. Policy dialogue and partnership with the WB and GOI enabled DFAT to influence the programs' direction, for example, the integration of disability into the programme and inclusion of retrospective disability baseline data in the MIS, and training of facilitators in DID; a greater focus on stunting - which is a policy priority of DFAT - with the introduction of a stunting pilot (2018-2019); and played a key role in the introduction of a complaints handling system, and a Helpdesk and Immediate Response Service (IRS) - a web-based communication system to allow two-way communication between facilitators/field staff with questions and a central team providing direct responses.

## 4.6 RISKS AND SAFEGUARDS

### 4.6.1 Risk Identification and Management

The 2006 Project Appraisal Document (PAD) for PAMSIMAS I included an initial risk matrix. While the overall risk was rated as **Moderate**, substantial risks were noted as complex institutional arrangements, misuse of funds and inconsistent policy for subsidies for household latrines. Moderate risks were lack of political will, lack of transparency in village selection, exclusion of vulnerable communities, lack of demand for sanitation improvements, failure to achieve long term hygiene behaviour change and low construction quality. Mitigation strategies were developed for these risks.

In the 2013 PAD for PAMSIMAS II, an Operational Risk Assessment (ORAP) was prepared, although the overall risk assessment remained **Moderate**. For PAMSIMAS II the risks were seen as maintaining the level of demand for PAMSIMAS, the slow recruitment of TA resources, procurement weaknesses, fiduciary risk, inadequate local capacity in new districts and villages, delays and shortfalls in annual budget issuance, the need to maintain a comprehensive safeguards framework and the need to focus on sustainability. Again, mitigation strategies were developed for these risks.

Under PAMSIMAS III, the overall risk rating remained **Moderate**. The substantial risk identified was for institutional capacity for implementation and sustainability, and for sufficient allocation of counterpart funds. The scale up of project activities in some of the more challenging implementation contexts presented the risk of implementation delays due to project management deficiencies, start-up delays, delayed mobilization of technical assistance resources, and inadequate local capacity in the new districts and villages.

The Interim Completion and Results (ICR) Report for PAMSIMAS 1 and II identified the most important risks to development outcomes as (i) technical risks due to inadequate O&M; (ii) financial risks due to inadequate tariffs; and (iii) institutional risks related to management of the water systems. The overall risk remained at **Moderate** due to the mitigation activities being implemented. However, the review of the ICR observed that despite the mitigation

<sup>49</sup> KPI 4: Number of villages developing community action plans; KPI 13: % of target villages ODF; KPI 14: % of target communities adopting hand washing programmes; and KPI 15: percent of targeted schools that have improved WATSAN facilities and hygiene programmes

<sup>50</sup> Interim Implementation Completion and Results Report: PAMSIMAS Support Trust Fund, TF094792, WB, 2018

<sup>51</sup> This issue was identified during the review of the sAIG programme, where several LGs plagiarised City Sanitation Strategies.

<sup>52</sup> The difficulty sustaining ODF has been reported widely, for example see [What motivates open defecation?](#)

measures, 24% of the water systems were functioning at less than 80%, only 75% collected tariffs and only 42% of those collected sufficient revenue to cover O&M costs.

The AQC's for 2016 to 2020 did not report on risks and safeguards and presumably deferred to the WB Risk Register. However, the AIMR for 2021 and 2022 identified two primary risks as (i) technical related to inadequate O&M; and (ii) sustainability related to inability or unwillingness to impose full cost recovery tariffs. Risks and Safeguards for the project was rated as **Good**.

DFAT also conducted an Investment Design Summary Risk Assessment as part of their Investment Design Summary for PAMSIMAS III. The conclusion was that the investment was *low risk*. Potential risks for PAMSIMAS III were cited as (i) difficulty of remote communities in obtaining building supplies; (ii) difficulty of achieving behaviour change in sanitation and hygiene; and (iii) the need for the project to be more inclusive in issues related to gender, child protection and disability inclusion.

#### 4.6.2 Risk Mitigation

It appears that the programme risks were well understood and monitored by the WB. It is understood that WB maintained a Risk Register which was updated on a 6 monthly basis but that has not been sighted by the IET. It is also understood that DFAT utilises the WB Risk Register. The Investment Design Summary for PAMSIMAS III stated that "DFAT enjoys a very open and professionally collegiate relationship with the WB team and that PAMSIMAS is implemented in an open and transparent manner. Stakeholders meet often (monitoring missions and meetings) to discuss progress and how the programme can be improved" This indicates that communication between WB and DFAT (and presumably GOI) regarding risk identification and mitigation was **Good**.

In general, the risks identified for PAMSIMAS I and II were successfully mitigated through changes in programme implementation, especially those related to the sanitation and hygiene education component as well as the fiduciary risks, institutional risks and budgetary risks. Risks more recently identified in PAMSIMAS III such as inadequate WSS O&M and management, insufficient tariffs, and lack of local capacity will require continuous monitoring and assistance.

#### 4.6.3 Social and Environmental Safeguards

The 2006 PAD for PAMSIMAS I highlighted the challenges to include vulnerable groups in the project and the need to ensure all villagers regardless of social status received benefits. The WB Environmental Assessment and Indigenous Peoples' Safeguard policies were triggered by the project. Potential negative environmental impacts envisaged included the increased quantity of wastewater/grey water, increased competition to water resources and cross-contamination between latrines and shallow water tables. However, due the small size of most PAMSIMAS WSS, preparation of Standard Operating Procedures (SOPs) for environmental management were sufficient to meet the environmental regulations. PAMSIMAS was categorised as Environmental Category B which was retained throughout the programme.

The PAMSIMAS II implementation process focused more on women in key decision-making activities and strengthening of sensitization efforts towards disability issues related to the provision of water supply and sanitation facilities. Under PAMSIMAS III, the key social issue identified was the potential exclusion of vulnerable or disadvantaged people, such as women, the poorest, ethnic minorities and indigenous peoples (if they are present), either in the selection of the participating villages or in the community decision making process. The inclusion of vulnerable and disadvantaged people was assured using the Methodology for Participatory Assessment (MPA) approach. The Environmental and Social Safeguards Framework (ESSF) developed under PAMSIMAS II was reviewed and updated to incorporate recent regulatory changes in Indonesia's environmental assessment policy, and lessons learnt from the ongoing programme.

The PAMSIMAS I and II ICR reported that the project put in place a comprehensive safeguards framework and concluded that the grant had been generally complying with the safeguards requirements except for the minor deficiencies in the recording of Voluntary Land Donations (VLD). The DFAT Annual Investment Monitoring Report for PAMSIMAS III referred to the WB's Environmental Safeguards Specialist who cited several generic environmental issues relating to the sustainability of water resources in terms of quality, quantity, and costs. The environmental safeguards specialist suggested that in the future community development plans should include evaluation of potential water sources in relation to water quality, quantity, and feasibility of maintenance cost early during the planning phase and the Community Development Plan (RKM) development to decide whether it is necessary to find alternative water sources.

While environmental compliance was generally satisfied, issues of availability of water resources continue to be a concern for ongoing and potential future PAMSIMAS WSS in some areas such as Central Java where groundwater

yields are reducing, and saline intrusion is increasing. Improved water supplies have also resulted in increased generation of wastewater and grey water and future programmes will need to include a component on wastewater management to mitigate this impact. Inclusiveness of women and vulnerable groups in the programme also continues to be challenge despite more emphasis being paid to this especially by DFAT during PAMSIMAS III.

Mitigation of and adaptation to climate change has not been at the forefront of PAMSIMAS implementation to date. However, as the programme proceeds the impact of climate change will become more critical in the development of technical and financially sustainable water supply and sanitation systems. Climate change will only exacerbate the extent of the decline of groundwater and surface water yields as well as accelerate the saline intrusion such as that being experienced in Demak District of Central Java and will require much more stringent regulation of water resources. The use of renewable energy for borehole pumps will need more consideration and system budgeting will need to allow for this. In NTT, the use of solar pumps was widespread but more due to power shortages than to address climate change. However, to make the use of solar pumps more viable back-up systems will need to be included to enable the pumps to be effective in the rainy season. Increased flooding resulting from climate change can place at risk water supply and sanitation facilities and this needs to be considered during design. Further, unless wastewater is properly contained and disposed of through correctly designed septic tanks and faecal sludge management programmes, increased flooding can carry wastewater into local streams thereby increasing pollution and health risks.

#### BOX 4.4: FINAL DETERMINATION ON SUSTAINABILITY – APPLIES EQUALLY TO DFAT & PARENT PROGRAMME

- The programme defines sustainability in 2 dimensions: (i) long-term O&M of WSS & persistence of hygiene behavioural changes, and (ii) propagation of the PAMSIMAS approach to other villages. According to MIS data, the targets for both dimensions have been surpassed.
- The IET's fieldwork discovered that the definition of "fully functional" WSS was too narrow and several systems indicated by the MIS as fully functional did not supply sufficient water to meet basic domestic requirements. This appears to have led to the MIS projecting an overly optimistic view of WSS sustainability.
- Other concerns identified during fieldwork was the reduction in quantity and quality (saline intrusion) of some deep well water sources, which appeared to be a result of over abstraction due to the proliferation of private wells. Unchecked these practices will have a significant impact on the sustainability of WSS.
- The IET found that construction quality of WSS was generally good but replacement parts, such as pumps, were of inferior quality as compared to the originals and this led to regular breakdowns and frequent disruption to services.
- Most households in all three provinces visited by the IET disposed of wastewater to septic tanks of different designs and variable construction quality. There appeared to be issues finding artisans to construct/supply toilet facilities.
- In all the villages surveyed, a well-structured and technically capable KPSPAM/BUMDes led to more reliable services which, in turn, influenced the communities' willingness to pay
- The most successful villages identified during fieldwork were those that had prioritised water supply in their development planning and had used village funds or DAK funds to expand upon WSS constructed under PAMSIMAS.

## 4.7 SUSTAINABILITY

The term 'sustainability' can be interpreted in diverse ways but for this report we will use the three key elements of focus for this evaluation:

1. Existence & implementation of sustainability strategy.
2. Enduring benefits from the investment.
3. Use of local systems & strengthening of local capacity / Counterpart ownership over outcomes.

There are several subcomponents to sustainability in the PAMSIMAS programme:

Component	Description
Technical Sustainability	Has the infrastructure been planned, designed and constructed properly and is it being operated in accordance with appropriate standards such as to provide an acceptable service for the consumers?
Institutional/Governance Sustainability	Are there local laws and oversight mechanisms in place to regulate the provision of services to the consumers and is there a dedicated and competent operator in place to provide these services in accordance with the regulations?
Financial Sustainability	Does the operator have sufficient income through tariffs or subsidies to effectively operate and maintain the sanitation systems and to expand the systems as required?

Component	Description
Community/Customer Support	Are the arrangements supported by the community customers to the extent that they are willing to connect to the system and pay for the services?
Sustainability of the PAMSIMAS model	Is the PAMSIMAS modality considered by the government to be an effective way to deliver future WASH programmes that can be sustainable financed through the State Budget.

Each of these sustainability components are addressed in the following sections but, first, a brief overview of the programme's definition and monitoring of sustainability, and some key points related to the field study and sustainability are presented and discussed.

#### 4.7.1 The two Dimensions of Sustainability

The project defines sustainability as the ability to maintain operations, services and benefits over time. Sustainable access refers to ensuring sustainable services, from both the service provider and the user perspective, around key technical, financial and institutional sustainability indicators. The project uses the following functional definitions of sustainability<sup>53</sup>. A water supply system is considered sustainable if:

- It is functioning at more than 80% as designed.
- Tariff levels are sufficient to cover O&M costs.
- The KPSPAM has been established by the decree of village head or other means; an annual work plan for water supply and sanitation services is available; and a partnership plan setting out the multi-sector collaboration with other entities has been developed.

Sanitation interventions are considered sustainable if:

- ODF status is achieved and maintained (KPI 13).
- Communities adopt hand-washing practices (KPI 14).

The programme addresses the issue of sustainability in two dimensions. The first relates to the long-term operation and maintenance of the PAMSIMAS-financed water supply systems and to the permanence of the intended beneficiaries' behaviour change. Ongoing project implementation has led to the development of design features to enhance sustained operations and maintenance by the beneficiary communities. The second is the sustained adoption and propagation of the PAMSIMAS approach among villages and across the country.

Regarding programme expansion, PAMSIMAS is expected to be sustainable for the following reasons. First, PAMSIMAS is now regarded as the national platform of delivery for rural water supply and sanitation, with a clear government mandate to support the achievement of the Universal Access. Second, the Project has allocated adequate resources for advocacy, coalition formation, and capacity building activities to support PAMSIMAS expansion beyond its immediate target areas. This also covers strengthening of the associations of KPSPAMs and providing special facilitators for post construction support, under the coordination of local government and the Associations. Finally, the design of the Project has been structured to provide districts with greater ownership and the incentives to establish their own APBD funded CDD WASH programmes, through replication. In addition, the districts are expected to establish a partnership with the Associations of KPSPAM to maintain the functions established under the project, including hiring of the sustainability facilitators.

As of December 2021, targets on the first dimension of sustainability - indicators for water: KPI 3 & 10; and for sanitation: KPI 13 & 14 - have been fully achieved and exceeded.

PAMSIMAS addresses the second dimension of sustainability - propagation of the PAMSIMAS approach to other villages not directly participating in the programme – via KPI 7: “% of districts that are replicating the PAMSIMAS approach outside targeted communities”. According to the MIS, 411 (99%) of the 415 districts targeted by the programme had cascaded PAMSIMAS type programmes into other villages. However, the extent of propagation, or the number of villages in each district replicating the programme, could not be accessed from the MIS<sup>54</sup>.

#### 4.7.2 Overview of Sustainability in the Villages Surveyed

In accordance with the GOI's MTDP objective of achieving universal coverage of safe water supply and improved sanitation, PAMSIMAS III constituted a national platform of community-driven water supply and sanitation, and the

<sup>53</sup> Project Appraisal Document (PAD) of PAMSIMAS 3, the World Bank, December 2015

<sup>54</sup> At the time of writing, the Rekap KPI 7 full file (Arsip) was downloading with headings but no data. The discussion in the main text is based on the KPI 7 Detail file.

expectation is that it will last beyond completion of the programme supported by World Bank and DFAT. The high percentage of GOI financing for the programme comprising about 60% overall and 77% for PAMSIMAS III indicates that after 2021, it should be possible for GOI to provide 100% financing. The low-tech nature of most of the water supply systems has meant that O&M is affordable to the beneficiaries, and this was the case for the systems observed in Central Java and South Kalimantan although less so in NTT whereby most KPSPAMs were unable to charge a tariff.

The MIS suggests that 91% of the water supply systems are fully functioning, and this is cited as an indicator of sustainability. However, the field visits of the IET found that the definition of “fully functioning” is too narrow. Many of the reported “fully functioning” systems have issues either with water shortages during peak periods or in the dry season and some are systems with very few connections. Many of these systems have been unable to finance expansion to cover a larger proportion of the village or to construct additional water sources to overcome the water shortages. Of the 42 villages visited, only 13 could be considered as fully functional in terms of assured sustainability. Another 13 villages have good prospects of sustainability but will require additional support from the district to address some of the deficiencies.

Post-construction support was likely to be readily available during PAMSIMAS implementation as there were still many community facilitators in the field who could assist with this. However, following the completion of PAMSIMAS, while there remain District Coordinators<sup>55</sup>, the number of available facilitators to assist in post-construction support is quite limited. The role of the District and Provincial Associations of KPSPAM has been cited as a means by which KPSPAMs can be supported, but the observations during the field visits was that this service is rarely used and that the Associations’ principal role is in some coordination and arranging conferences but little hands-on support for the KPSPAMs.

### 4.7.3 Sustainability of Water Systems

#### *Water Quality*

Chemical, physical and bacteriological water quality tests conducted as part of the IET’s fieldwork are discussed in Section 3.2.3 and a summary table of the results is shown in Appendix 3 as embedded file 1 (*pp. 10-13*).

The two main concerns related to these water quality tests are the bacteriological contamination in South Kalimantan and NTT and the high salinity in the water in Demak District in Central Java. The bacteriological contamination could be either due to pollution of the water source or contamination within the pipe network. The issue of e-coli contamination could be easily resolved by including simple chlorination at the water source or reservoir. However, in general all consumers boil water before drinking so even if the water was chlorinated, they still may not have the confidence in the operation to drink water directly from the supply without boiling.

The issue of the saline water in Demak District in Central Java appears to be a result of over abstraction from the many private wells in the district and the increasing saline intrusion. To resolve this issue, the government will need to introduce strict regulation on the number of private wells, especially for any new wells proposed and undertake a long-term monitoring programme of groundwater resources, without which this the situation will only deteriorate.

#### *Functionality of Water Systems*

Table 4.3 summarises the degree of functionality of water systems in the villages visited by the evaluation team. Functional systems have been subdivided into 3 categories – fully functional, functional with water shortage or water quality issues, partially functional; and the fourth category is non-functional<sup>56</sup>.

<sup>55</sup> This is only in districts that continue implementing PAMSIMAS in 2022 using 100% GOI APBN. In NTT, 2 districts (Rote Ndao and Kupang) do not have the District Coordinator

<sup>56</sup> Fully functional: systems that are operational with no issues with water shortages or water quality; Functional: but with either water shortages or water quality issues, however, all elements of the system were functioning; Partially functioning: systems where elements of the constructed system were no longer functioning; Non-functioning: those systems that were no longer delivering water to the village residents.



Table 4.3: Functionality of Water Supply Systems in Villages Surveyed During Fieldwork

Province	Number of Villages	Number of Villages	Number of Villages	Number of Villages
	Fully Functional <sup>57</sup>	Functional, but with water shortage and/or WQ issue(s)	Partially Functional	Non-functional
Central Java	6	4	2	2
South Kalimantan	5	7	1	1
NTT	2	4	7	1
<b>Total</b>	<b>13</b>	<b>15</b>	<b>10</b>	<b>4</b>

It could be concluded that the 13 villages with fully functional water systems will be sustainable for at least the next five years. For the 15 villages with functional systems but with water shortage or water quality issues, the picture is different for each Province.

In Central Java, those with water shortages were most often villages that had implemented PAMSIMAS but had been unable to expand the original PAMSIMAS system or provide an additional water source which resulted in the existing source being over-utilised causing water shortages. Often these villages did not have water supply as a development priority that may call into question their original selection to be supported by PAMSIMAS. With a more proactive approach from the village government and assistance from the district, these villages could become sustainable. The partially functioning villages included one where one of the wells had failed and another where only 15 HH had connected due to lack of demand. These villages are at risk of not being sustainable.

In South Kalimantan, the water shortages observed were seasonal or peak-time related. There were also water quality issues in some villages, but in a few cases the KPSPAM had been pro-active and installed treatment systems. This category of villages needs further support from the district to resolve some of their water shortage issues if they are to remain sustainable. The partially functioning village was one where only 10HH are connected and which had no water for 4 years after a storage tank burst. The system in this village may not be sustainable.

The most serious situation was in NTT where only two of the 14 villages visited were fully functional. Most of the other 11 villages with functional or partially functional systems only received water for one or two days per week. The systems in seven of these villages had suffered pump breakdowns or other technical issues whereby part of the system was no longer operating. Many of the villages in NTT had multiple projects from PAMSIMAS sometimes to repair earlier PAMSIMAS systems and were assessed as less likely to be sustainable in the medium to long-term than those functioning systems in Central Java and South Kalimantan.

One other significant reason for non-functioning systems was the inflexibility of the budget to consider unforeseen circumstances. For example, in Kalikayan, Semarang District, the well failed during construction and there were insufficient funds to develop an alternative source; in Bermir, Demak District, the system was constructed in 2011 but the budget was insufficient to extend power to the well pump - the system was abandoned and never operated.

### Quality of Construction

In both Central Java and South Kalimantan, the quality of construction was observed to be good in all locations visited. This was less so in NTT where in some locations, infrastructure was of lower quality with cracks and leaks in water tanks, and a few unusable facilities. The key issues raised during the visits were:

- In Central Java, while the submersible borehole pumps originally installed were of good quality, usually the replacement pumps selected were of lower quality and needed to be replaced frequently.
- In NTT, solar pumps were widely used but the operation was dependent on the weather resulting in a decrease in pump performance on cloudy days. Where solar pumps are installed, there is a need for a back-up water supply such as rainwater harvesting or another alternative source.
- In Central Java, the KPSPAMs were critical of the specified depth of laying pipes at 400mm below the surface. When laid adjacent to roads, often heavy vehicles would travel over and cause pipe breakages. International standards would normally require pipes to be laid at least 1m below the surface under & adjacent to roads.
- Some KPSPAM in Central Java complained about the quality of water meters/malfunctions affecting their incomes.
- In South Kalimantan there were no complaints about the quality of infrastructure or allied equipment.

<sup>57</sup> The household survey provided more optimistic data indicating that 67% of respondents considered that water was always available.

#### 4.7.4 Sustainability of Sanitation

##### *Toilet Coverage*

In all three Provinces visited, most villages had a high percentage of toilet coverage and, generally, this had increased from the pre-PAMSIMAS period, but not to the extent indicated by the MIS. Some villages attributed this to the PAMSIMAS hygiene promotion programme, but many also cited the MOPWH programme focused on construction of toilets, and some villages indicated they had improved sanitation facilities before PAMSIMAS interventions. There appeared to be no issues regarding finding artisans to construct or supply toilet facilities. In Central Java and South Kalimantan, most villages claimed to be ODF or near ODF, while it was about 60% of villages in NTT.

##### *Wastewater Disposal*

Most households in all three provinces disposed of wastewater to septic tanks. The septic tanks were of variable design, sometimes sealed, but often with sealed walls and a porous base. Those constructed under the MOPWH programme tended to be of higher quality. Septic tank effluent was in some cases disposed of in an infiltration bed, some through the porous base and some into the drainage system. There were some cases in NTT where a biofilter had been provided for the effluent. In Central Java, most households availed of a septic tank pump-out service anywhere in the range of every 3-10 years at a cost of IDR 200,00-300,000. While often septic tank effluent and grey water was disposed of to the drainage system, only a few villages complained of pollution in the village, and it was not obviously noticeable. However, it is suggested that the next step in the sanitation programme now that toilet coverage is high is to give more consideration to management of the septic tank effluent, the septage pumped out from the septic tanks the disposal and treatment of grey water.

##### *WASH in Schools*

In Central Java, WASH programmes were conducted by PAMSIMAS in schools in all villages visited. In addition to hygiene awareness programmes, this comprised construction of toilets and handwashing basins. While the quality of construction was variable, the programme was effective and the facilities were well maintained. Some had included handrails for the disabled, but often there were obstacles which made it difficult for the disabled to use the facilities. Although not always in evidence it was claimed that soap was made available for the students using these facilities. At one school in the village of Gunungtempung in Semarang Province, washbasins had been provided in every classroom. In NTT, only two of the villages visited acknowledged that there had been as WASH programme conducted by PAMSIMAS in schools.

#### 4.7.5 Institutional/Governance Sustainability

Emerging experience in recent years with the new generation of community-demand driven projects shows that for long-term sustainability of services, community management alone may not be an adequate arrangement. Newer models of support and responsibility sharing between user communities and local governments, or other potential players such as INGO, NGO, or private sector agencies need to be explored.

A recent study<sup>58</sup> by the WB on governance drivers of rural water sustainability showed that differences in the implementation of community participation, driven by local social relations between frontline service providers, that is, village authorities and water user groups, explain sustainable management. This initial condition of state-society relations influences how the project is initiated, kicking off negative or positive reinforcing pathways, leading to community collective action or exit. The study concluded that the relationships between frontline government representatives and community actors are an important and underexamined aspect of the ability of external projects to generate successful community-led management of public goods.

##### *Community-Managed Organisation*

The KPSPAM or other forms of management organisation, for example BUMDes, is one of the central pillars in ensuring sustainability of PAMSIMAS infrastructure and water supply. In all the villages surveyed, a well-structured and technically capable KPSPAM/BUMDes led to more reliable services which, in turn, influenced the communities' willingness to pay. More specifically:

- In Central Java and South Kalimantan, non-functioning villages did not have KPSPAMs and those with partially functioning WSS had poorly resourced and ineffective KPSPAMs.
- Most successful KPSPAMs in Central Java (Demak District) and South Kalimantan (Banjar District) had waged staff.
- In NTT, of the 12 fully and partially functional villages only 3 have an effective KPSPAM, 3 villages delegated the operation and maintenance functions to the head of hamlet, 2 villages have transformed into BUMDes but are not

<sup>58</sup> Governance Drivers of Rural Water Sustainability, the WB Group Water Global Practice, October 2021

effective and the remaining 4 villages have no KPSPAMs and rely on 1 or 2 volunteers to manage the system. This situation is reflected in NTT having the lowest rate of fully functional systems.

- One exception in NTT was in Tuatuka village, with an outstanding KPSPAM, which had salaried staff receiving IDR 700,000 per month. This KPSPAM recently introduced digital technology for billing and tariff collection.

### *District Association of KPSPAMs*

The formation of district level KPSPAM Associations became one of the strategies for long-term sustainability of PAMSIMAS by offering technical, facilitation, and training support to KPSPAMs, and to establish partnerships to facilitate local service expansion. However, in 8 of the 9 districts visited (except Banjar, South Kalimantan)<sup>59</sup> most associations could not play those roles due to lack of resources. Further, while KPSPAMs in Central Java and South Kalimantan had had some interaction with their associations, in NTT the KPSPAMs were not aware these associations.

### *Community Participation*

As shown by a recent study<sup>60</sup>, the sustainability of water supply infrastructure is highly associated with the levels of community participation; however, the socioeconomic conditions in villages affect the strength of this relationship:

- In Central Java and South Kalimantan, almost all villages visited had a satisfactory level of community participation during the planning, design and construction of the water supply facilities. In a few villages, although the community participated in planning and construction, all financial contributions were made by the village and the communities were only asked to contribute in-kind.
- In NTT, only in a few villages the communities confirmed their involvement in the process; most of them claimed they were aware of PAMSIMAS only after receiving the water service. In addition, the household survey showed that NTT has the lowest socioeconomic condition compared to the two other provinces, and this is confirmed by the GOI's Indeks Desa Membangun (IDM or Developing Village Index).

### *Local Socio-Political Relations*

Local socio-political relations are an understudied but influential factor on project implementation which creates positive or negative pathways for participatory water management<sup>61</sup>. Although local social-political relations are not one of the key focuses of this independent evaluation, for the case of NTT and perhaps other locations in Eastern Indonesia it is essential to look at this as a consideration for future programming. In NTT, the political climate was volatile and so a small issue could easily bring conflict between communities, or communities and KPSPAM/community-managed organisation. In several villages, the infrastructures (mostly pipes) were tampered with as a result of conflict. Tension between village government and KPSPAM/community-managed organisations tended to result in the infrastructures and services being neglected. Further, NTT has been a favourable location for many development agencies, which appears to have created a dependency on external assistance. Many communities opted to wait for other programmes to fix their technical problems despite the poorly managed infrastructure requiring the communities to spend extra money to buy water.

### *KPSPAM and PDAM*

No overlap of services provided by KPSPAM and PDAM was identified in South Kalimantan. However, in Demak District, Central Java, the PDAM had constructed networks within some villages supplied through PAMSIMAS systems but had been unable to attract people to connect to their system. This had resulted in considerable financial difficulty for the PDAM there. It was reported that the villagers preferred PAMSIMAS to the PDAM. While the cost of the PDAM water was reported to be 2-3 times that of the PAMSIMAS water, this was not generally the reason given for the community preferring PAMSIMAS, rather that the PAMSIMAS water was of better quality, the supply was more reliable, and the system was considered to be under village ownership and more under the control of the community. Furthermore, in NTT, there were some villages with overlapping services and anecdotal evidence suggests that this had created some tensions and unhealthy competition.

<sup>59</sup> Banjar District had continued a budget allocation for the continuation of PAMSIMAS projects; it had retained all dedicated staff, including facilitators. The villages visited in this district were all high performing.

<sup>60</sup> Governance Drivers of Rural Water Sustainability. Policy Research Working Paper 9798, The WB Group, 2021.

<sup>61</sup> Governance Drivers of Rural Water Sustainability, the WB Group Water Global Practice, October 2021

### *Village Government Support*

As the frontline government body, the village government roles in ensuring sustainability are critical. A greater attention was given to the roles of village government in PAMSIMAS III, particularly since the introduction of the Village Law in 2014.

This law brought a significant change to the village governance structure by providing for greater accountability of the village government to villagers. The village law allowed village governments to receive fund transfers from the central government budget for ensuring financing of local development priorities. Since PAMSIMAS III, a new subcomponent was added: **“1.4. Development of mechanisms and capacities of village government for maintaining and expanding water supply and sanitation services”**. The newly established MOVDT became the implementing and responsible agency for this subcomponent. In PAMSIMAS III, the village government is obligated to contribute a minimum of 10% for the community block grant and around 88% of the village government fulfilled this obligation during 2016-2021. However, as PAMSIMAS has ended, the general trend is that the various levels of government have turned their attention away from WASH. The result has been smaller or no budgets for sustaining and building on the PAMSIMAS programme from village government – one exception to this was Banjar District (see Section 4.7.5, above). At the discussion with national level, MOVDT highlighted that the asset ownership and management are the critical factors influencing the ability of village governments to allocate funds for rehabilitation and expansion. As per Ministry of Home Affairs regulation no. 18/2018, KPSPAM is classified as a private organisation, and this makes it challenging for village governments because of the uncertainty of assets ownership and which institution is responsible for water systems.

It is noteworthy that in Central Java and South Kalimantan, the most successful villages were those that had identified water supply as a priority of development planning and had either used village funds or obtained DAK funds to expand upon systems constructed under PAMSIMAS. Those which had failed to do this experienced water shortages as the PAMSIMAS systems were unable to supply the increasing demand for water.

### *District Government Support*

Since the beginning, the role of local government particularly at district level has become one of the critical elements in PAMSIMAS. Indonesia’s transition to democracy in 1998 was followed by a policy of decentralization through local government law in 1999 which was revised twice in 2004 and 2014 when significant responsibilities were devolved to districts and municipalities, including provision of basic services such as water and sanitation.

As of December 2021, PAMSIMAS recorded that 96% of districts have prepared plans (RAD AMPL) to support the adoption and mainstreaming of the PAMSIMAS approach (exceeding the target of 70%) and 99% of districts have replicated the PAMSIMAS approach outside target communities (exceeding the target of 90%). Furthermore, 76% of districts have an increased expenditure towards meeting the requirements to maintain existing WSS systems and achievement of Universal Access (exceeding the target of 60%). However, Table 4.4 shows that despite the increment of budget realisation in water supply and sanitation, the amount is too low. The national government through the WSES working group advocated local government to allocate annually a minimum 2% from the total LG budget for the WSS sector. 7 out of 9 districts visited (all 6 in Central Java and South Kalimantan, and 1 in NTT) continued to implement PAMSIMAS in 2022 with majority using GOI funding (APBN and APBD) and limited amounts from the remaining DFAT trust fund.

Thus, all the 7 districts can maintain and keep the district coordinator and facilitators with support from the central government budget (APBN). However, in 2 districts in NTT there were no district coordinators and facilitators since the beginning of 2022. The district governments did not continue employing facilitators as expected to support sustainability, thus the assistance to PAMSIMAS villages and KPSPAM is limited. The latter condition will pose a great challenge for sustainability when the support from central government fund comes to an end.

**Table 4.4: District Budget for WASH Against Total Budget in PAMSIMAS Districts**

Year	District Total Budget (APBD, IDR m)	Budget Realisation For Water (IDR m)	% of Total Budget	Budget Realisation For Sanitation (IDR m)	% of Total Budget
2017	1,905,419,525	8,872,725	0.47%	5,708,196	0.30%
2018	1,982,449,278	15,714,700	0.79%	6,634,173	0.33%
2019	2,101,476,265	15,964,216	0.76%	7,111,892	0.34%
2020	1,905,774,358	21,957,812	1.15%	14,209,017	0.75%

As part the effort to mainstream PAMSIMAS approaches, the project obligated districts to implement similar projects outside target communities using their own fund (APBD) which is referred to as replication. However, districts were only responsible to allocate budgets for the block grants for infrastructure and activities at community level while the cost for district consultant/coordinator and facilitators were provided by the central government budget (ABPN).

**Table 4.5: Fiscal Capacity of the 9 Districts Surveyed** Based on discussion with 2 districts in NTT (Kupang and Rote Ndao districts) that did not participate in PAMSIMAS 2022, this was due to low fiscal capacity and inability to set a budget for the PAMSIMAS approach. The fiscal capacity of all nine districts covered by the IET's fieldwork is shown in Table 4.5.

Province	District	Fiscal Capacity <sup>62</sup>
Central Java	Semarang	High
Central Java	Demak	High
Central Java	Grobogan	High
South Kalimantan	Banjar	Medium
South Kalimantan	Tanah Laut	Medium
South Kalimantan	Barito Kuala	Low
NTT	Kupang	Very Low
NTT	Timor Tengah Selatan	Low
NTT	Rote Ndao	Very Low

It is important to note that in these two districts that were not able to continue PAMSIMAS, the cross-sectoral and inter-agency collaborations for supporting sustainability of the programme's infrastructures and services have faded away. The IET could not even meet with all responsible local agencies of PAMSIMAS, and it was just BAPPEDA and Public Works that could be contacted. The village governments also confirmed that support from local agencies was limited. Further, based on discussion with those two districts, even if they could allocate budgets for the infrastructures and activities at village-level it would be extremely difficult to allocate funds for district consultants and facilitators.

### *Provincial Government Support*

The provincial government roles and functions during the implementation of PAMSIMAS were mostly on project management, coordination, building capacity and backstopping the district governments, and monitoring of progress. Since all 3 provinces visited during the fieldwork are continuing the implementation of PAMSIMAS in 2022, the provincial governments are still maintaining these functions. However, the provincial government believed that the assistance required to ensure sustainability or post-construction support is the responsibility of district governments as per local government law no. 23/2014, since the provincial government responsibilities are affairs that cross the boundaries of more than one district.

### *National Government Support*

A draft PAMSIMAS Sustainability Strategy concept note was prepared in mid-2021 aimed to document the pathway towards institutionalisation of the PAMSIMAS approach as a national platform for rural community-based drinking water and sanitation programmes, with emphasis on the integration with regular annual planning in the national, provincial and district level. With the proposed extension of the PAMSIMAS Trust Fund until August 2022, BAPPENAS continues to develop the concept of a sustainability strategy with a priority on preparing the governance of community-based rural water and sanitation programmes. In August 2022, the draft of guidelines for the governance of community-based rural water and sanitation programme and design and management plans was completed and has been discussed with local governments for feedback. These are critical guidelines for all stakeholders at the local level since they support sustainability and propagation of the programme but, at the time of writing, these guidelines have yet to be formalised.

<sup>62</sup> District fiscal capacity (as per MOF Regs No. 116/PMK.07/2012) is the financial capacity of each district reflected through regional income minus the income for which the use of has been pre-determined. The district fiscal capacity map annually updated by MOF.

## 4.7.6 Financial Sustainability

### *Tariffs and Cost Recovery*

Table 4.6 shows the extent of tariff collection and cost recovery being achieved in the villages the IET visited.

In Central Java and South Kalimantan, there was usually a connection fee in the range of IDR 300,000 to IDR 500,000 and sometimes a monthly fee in the order of INR 3,000/month in addition to the tariff. Collection efficiency was reported to be high in both provinces.

**Table 4.6: Tariffs and Cost Recovery**

	Fixed Rate		Volumetric Rate		Villages with no tariff	Cost Recovery Number of Villages		
Province	Villages	Range (IDR)	Villages	Range (INR)		Surplus	Balance	Deficit
Central Java	0	---	12	1,000-3,000/m <sup>3</sup>	0	4	5	3
South Kalimantan	5	15,000-60,000 pm	7	1,500-4,000/m <sup>3</sup>	1	3	8	2
NTT	2	5,000-10,000 pm	1	3,000/m <sup>3</sup>	10 <sup>63</sup>	2	1	10
<b>Total</b>	<b>7</b>	<b>---</b>	<b>20</b>	<b>---</b>	<b>11</b>	<b>9</b>	<b>14</b>	<b>15</b>

The situation in NTT contrasted with that in the other two provinces with an extremely low incidence of monthly tariffs. Many villages had originally charged a tariff, but it was discontinued after the initial year. Reasons given for this were:

- Water supply is insufficient and does not justify paying a tariff.
- The community feels they should not pay for water provided by a government project.
- The villagers believe that payment is only necessary at the time repair work is required.

The village of Tuatuka in Kupang District was an exception as not only is there metered charges of IDR 3000/m<sup>3</sup> but the KPSPAMs had recently introduced digital technology for billing and water charge collection. They were inspired by one of the KPSPAM in Bali whom they met during sharing session event conducted by Ministry of Public Works and Housing. Demak District in Central Java was also exploring this option for KPSPAMs by conducting a study visit to a village in Central Java that had adopted a similar digital billing and collection system.

<sup>63</sup> The household survey indicated that 47% of beneficiaries in NTT pay for water.

## 5. CONCLUSIONS

This section pulls together the analysis, evidence and arguments from the preceding sections to form a set of concluding remarks that summarise the findings. It starts by answering the first two key evaluation questions (KEQ) as presented in Section 1.5; the third KEQ, relating to considerations for future programming, is addressed in Section 6.

### 5.1 ANSWERS TO THE KEY EVALUATION QUESTIONS

#### 5.1.1 KEQ 1: To What Extent Have PAMSIMAS III Objectives & Outcomes Been Achieved?

From the perspective of the MIS data, it may be concluded that PAMSIMAS III has exceeded outcome targets related to the additional people benefiting from improved water and sanitation, and hygiene programmes and, therefore, fully met the PDO. However, looking beyond the MIS KPI data the IET has identified several weaknesses and inflexibilities that have served to limit the programme's performance and subsequent benefits.

##### *What are the Factors Affecting Performance?*

- Inadequate WSS management and financing for routine O&M means that over 2 million consumers at the end of PAMSIMAS III have insufficient or no water supplies from their systems.
- WSS operating below installed capacity appears to be a significant performance issue. According to data held on the MIS, if all PAMSIMAS WSS operated at installed capacity a further 6.5 million people could benefit from improved water sources.
- Conversely, the IET identified some WSS that had expanded their consumer network and over-extended the capacity of WSS, which had created water shortages. There is insufficient data to indicate how widespread this issue is but it is an area worthy of further investigation.
- Inflexibility of funding to address unforeseen issues has left some WSS abandoned without ever having functioned; two such cases were identified during the fieldwork. Again, there is insufficient data to suggest the extent of this issue although it was mentioned in the 2019 beneficiary survey where in 6 of the 162 villages surveyed, a WSS was identified that had never been used after construction - or about 4% of systems, which is a similar in magnitude to that found in the current study (5%).
- Villages are facing challenges in extending access to improved water sources to more of their community members, despite the longevity of the programme. At the end of PAMSIMAS III the average coverage stands at about 43% (46% in phase 1 villages; 48% in phase 2; and 40% for phase 3). This trend appears inconsistent when compared to obvious benefits of improved water sources.
- The challenges identified in expanding access to improved water sources could be due to the lack of women in leadership roles and exclusion of men from programme socialisation on water, sanitation and hygiene, which appears to have led to local decision-makers (generally men) failing to recognise the importance of WASH and not prioritising WASH developments in village government plans.
- Poor understanding and inadequate involvement of people with disability and OPDs in the quest to develop inclusive WATSAN facilities has limited the performance of the DID programme by reducing the quality and accessibility of infrastructure and reducing the number of people with disability benefiting below that indicated by the MIS.
- Inability or reluctance of people/communities to pay for PAMSIMAS water is one of the key reasons for poor performing WSS. This is a complex issue that should impact on the village selection criteria and involves a range of factors, including socioeconomics; viable alternative water sources; local politics; etc. In underdeveloped areas with poor economies, other means of financing WSS O&M need to be considered.
- There is evidence that over abstraction of ground water sources through the proliferation of private wells and boreholes, has led to declining capacities and quality of water supplied by some PAMSIMAS WSS. Unchecked, this issue will continue to worsen.

##### *Did M&E Systems Generate Credible Information that was Used for Management Decision-Making, Learning and Accountability Purposes?*

In short, yes (see Section 4.5 for a full discussion). However, MIS data inaccuracies identified and some weaknesses detected in the form of several KPI and the systems in place to track WSS functionality and consumer satisfaction tend to suggest that the MIS gives a somewhat over optimistic view of success.

This is likely to have hampered decision-making and learning throughout the programme, most particularly concerning the number of people/households benefiting from a regular supply of water that meets at least basic

domestic needs; and WSS functionality and their prospects for longer-term sustainability. Beneficiary surveys have tried to augment the data held on the MIS in these and other key areas of the programme, but the way the data has been collected, treated, and reported appears to have presented an over optimistic view of achievements.

### *To What Extent has the Programme Influenced GOI Policy and Practice?*

PAMSIMAS and DFAT's role have both played significant roles in influencing GOI policy and practice:

- Intra and inter-government collaborative working has improved significantly as a result of PAMSIMAS and this is likely to have had benefits to a spectrum of activities beyond this programme.
- It is highly likely that PAMSIMAS had an influence on the development of the Village Law passed in 2014, since this was instrumental in building the legislative framework necessary for a more effective CDD approach.
- PAMSIMAS was elevated to a national programme at the start of phase 3 and was formally integrated with the national STBM programme, again demonstrating the commitment to collaborative working. These are significant events since PAMSIMAS has convinced the GOI that this is indeed the approach that has the best prospects for supporting the government in meeting SGD targets nationally.

PAMSIMAS has been less successful influencing:

- The quality of engagement of women in the programme, despite the GAP providing clear guidance to help facilitators go beyond the quotas, which remained the narrow focus throughout PAMSIMAS.
- Men and building their understanding of, and commitment to, WASH with a broader aim of influencing village development decision-making processes so that WASH is prioritised in village planning and budgeting.
- Local governments to commit to prioritising and budgeting for WASH developments in the longer-term, which is a threat to the sustainability of existing WATSAN infrastructure and any future rural WASH programmes.

### *Would Benefits Last After DFAT Funding Ceases?*

In view of the nature of DFAT's support, being both wide-ranging on software elements of the parent programme and specifically focused on inclusive WASH and to a lesser degree - but no less importantly on gender equality, there are several benefits that may diminish or cease going forward.

- **Sustainability of WSS:** DFAT has focused considerable effort on the software elements of PAMSIMAS that has helped to build local capacity to manage and maintain WSS. Nonetheless, and since the IET has identified plausible evidence that the programme has over-estimated the degree to which WSS are functioning and supplying water that meets at least basic domestic requirements, there is still work to be done on sustainability-related issues – the magnitude of which is likely to have been underestimated. Going forward and without external financial assistance, it is most unlikely that the level of TA and capacity building support applied in the current programme will continue. In this case the IET feel that many WSS that are marginal will not be able to sustain a regular supply of water that meets basic household needs and are in danger of eventually failing. The challenge for the GOI is that it is highly likely that most of these marginal WSS cannot be identified from the data held on the MIS due to the narrow definition of WSS functionality.
- **Gender Equality:** DFAT, as it is in all its development programmes, has been at the forefront of gender equality and gender-sensitive programming in PAMSIMAS. While advances have been made in this programme, a lack of appreciation by key government ministries of the benefits of women's involvement in WASH programmes is in evidence, despite several studies clearly demonstrating these. FDGs with these key government ministries' personnel in the final week of the fieldwork revealed a lack of urgency or need for monitoring women's participation in PAMSIMAS beyond the set quotas. It is likely, therefore, that gender equality beyond the quotas will become a secondary concern going forward.
- **Disability Inclusion:** Like gender equality, and particularly since disability inclusion posed challenges to all levels of government, it is difficult to envisage that any benefits accrued from inclusive WATSAN facilities will last in the longer-term now that DFAT's funding and involvement has ended.

However, it is important to stress the government's commitment to the continuation of PAMSIMAS efforts despite the end of support from the WB and DFAT. This is exemplified by the implementation continuing throughout 2022 and the plans that have been put in place for 2023.



## 5.1.2 KEQ 2: To What Extent has the Programme Modality Contributed to achievements?

### *Has the Community-Driven Development Approach Helped or Hindered Achievement?*

The IET have identified cases where the CDD approach has flourished and other where it has worked less well or failed. In view of the disparate nature of villages and their communities, the general conclusion is that the CDD approach is unlikely to be suitable for every village in the country. The CDD approach has:

#### Helped achievements via:

- Communities with a high baseline level of social capital and the ability and willingness to join forces to work towards success. Social capital does not necessarily correlate with wealth and the IET identified extraordinary programme achievements in a relatively poor village in NTT as well as a few wealthier villages in South Kalimantan.
- Reinforcing the concept of local government responsibility for water supply and sanitation and improving coordination between agencies in the sector.
- Strong and wide-ranging community engagement that has provided many, but not all, beneficiaries with a sense of ownership of their water supply and sanitation facilities.
- Developing awareness and understanding of the impacts of poor WASH and providing an understanding within the community that provision of water supply and sanitation has a value in promoting a better quality of life.
- Ensuring that there is effective management of the water supply system including the concept of paying for services in delivering water supply to the household. These have taken hold rapidly in communities with a good baseline level of social capital but have failed to do so in other, less cohesive and fragile villages (see below).

#### Hindered achievements because of:

- Autocratic village heads or newly elected heads that view PAMSIMAS as their predecessor's project and, therefore, not of their concern.
- Communities with low social capital due to fragile local development; ethnic tensions or other reasons for poor community cohesion such as large disparities in living conditions and access to services; or villages with a history of external support from INGOs and NGOs.
- Villages with availability of alternative and affordable water sources resulting in no incentive to pay for PAMSIMAS water or contribute to WSS repairs.
- Lack of engagement with men on the benefits of improved water, sanitation and hygiene, which has served to perpetuate the lack of focus on WASH projects in village development plans.

### *To What Extent has the WB Loan & DFAT Grants Leveraged Other Funding Sources?*

Leverage of other sources of funding as a result of the WB loan and DFAT grants is discussed fully in Section 5.4. In summary:

- The total amount of local funding leveraged by the USD 646.30 million WB and DFAT financing was USD 1.022 billion or a ratio of 1.57.

### *What was Most Valuable About DFAT's Support to PAMSIMAS?*

While DFAT's support has impacted beneficially on many areas of the programme, including expanding reach, gender equality and disability inclusion, and on the quality of delivery, it is the view of the IET that DFAT's support in facilitating the enabling environment for strong community-based engagement, and locally trained facilitators and technical personnel, has been instrumental to the successes shown by this progressive and expansive rural WASH programme.

The struggles with community engagement and creating demand were in evidence during the early days of PAMSIMAS<sup>64</sup>. Without DFAT's involvement, and because of the constraints on the use of the WB loan, it is difficult to envisage that the high-level of community engagement, and local capacity building and TA necessary for CDD to gain traction would have been achieved to the extent it has. DFAT's flexible financial contribution, experiences and knowhow has, in the opinion of the IET, played a seminal role in supporting a successful CDD approach that is the foundation of all PAMSIMAS achievements.

<sup>64</sup> PAMSIMAS: Responding to the Water and Sanitation Challenges in Rural Indonesia. The World Bank, 2014

### *To What Extent has PAMSIMAS Demonstrated a Focus on Gender Equality and Inclusion of People with a Disability?*

In terms of standard operating procedures (SOPs), guidelines and action plans, both gender equality and disability inclusion appeared to receive a high level of attention in the programme. Beyond these documents, however, routine monitoring of the performance in these areas was rather cursory, focusing entirely on the numbers - women and men in meetings and other fora, and the number of “accessible” facilities built. There is a conspicuous disconnect between the expectations of quality as detailed in the GM SOP and DID technical guidelines and the monitoring efforts, which served to detract from the quality of delivery of gender equality and disability inclusion activities. This, in turn, prevented the programme capitalising on women’s involvement to improve programme effectiveness and ensuring the quality and accessibility of WATSAN infrastructure to improve the quality of life of people with disability and the wider community.

Overall, the focus on gender equality and disability inclusion was below what could have been achieved. And despite several gender surveys being conducted during the course of the programme, there is little evidence that any of their recommendations were integrated into PAMSIMAS.

## 5.2 OTHER CONCLUSIONS

### 5.2.1 PAMSIMAS as a Social and Institutional Change Agent

Whilst grappling with the sheer magnitude of the programme, PAMSIMAS was also called upon to address the need for social change among communities and institutional changes through government at all levels.

There are no typical villages in Indonesia and all have various levels of social capital<sup>65</sup>, and disparate cultural norms; ethnicities; and local economies. Social change requires understanding the complexities of local context, and PAMSIMAS worked towards this through the recruitment of local facilitators and joining forces with local PUSKEMAS to deliver socialisation. And these efforts have shown a great deal of success in most provinces in bringing communities together through a common development aim. However, as shown by the IET’s fieldwork, there are geographical areas that have been difficult to engage and promote local collaborative development efforts. For example, the fieldwork in NTT showed extremely poor WSS functionality and hygiene practices prevalent across most of all 14 villages visited there. In such areas, more sustained or different approaches appear to be necessary to introduce, hasten and sustain improvements.

Cross-sectoral collaborative efforts between government institutions at subnational level is complicated due to the fragmentation of roles and responsibilities over several local agencies left in the wake of decentralisation. This was identified during the evaluation of the sAIG programme in which local collaborative efforts were largely absent to the extent that some critical local agencies were not aware of the sAIG programme in their area. The challenges were exacerbated in 2014 with the passing of the Village Law in 2014, which added a further layer of governance and administration to PAMSIMAS. However, the programme has managed to energise and bring together the plethora of local agencies in a successful collaborative way of working. The IET see this as probably the least recognised critical success factors of PAMSIMAS. Whether this way of working will be sustained now that the programme has ended, is uncertain. The IET discovered during the fieldwork that local collaboration had become fragmented in some areas due to lack of funds, changing development priorities, and a general diminishing focus on PAMSIMAS.

### 5.2.2 Performance Between the Phases & DFAT-Funded Villages

No significant difference in performance was identified across the three phases of the programme, but large variations were found across provinces. Further, no significant differences were found overall between DFAT-funded villages and the whole programmes results for coverage of water, sanitation, ODF, handwashing programme uptake, or school sanitation and hygiene programmes; the same result was also found across the 3 phases, DFAT villages were found to have a higher proportion of villages with 80% or more coverage of water and improved sanitation, and this might be a result of the higher participation of women identified in DFAT-funded villages compared to the national average.

<sup>65</sup> The IET define social capital as the norms and networks that enable collective action.

### 5.2.3 When PAMSIMAS Works Best

The field visits by the IET identified PAMSIMAS systems that operated effectively in and some which were less successful. The following factors were some of the reasons behind the success of the programme in certain villages.

- Villages with a high level of social capital, indicated by the level of engagement in FGD; the relationship between village heads and community members; evidence of other community-led activities and projects; and an understanding and acceptance that improved water supplies have a significant bearing on quality of life and must be paid for by the consumer to sustain the provision.
- Strong and egalitarian leadership at the village level and the KPSPAM resulting in the formulation of village plans that prioritised water supply and sanitation to enable the expansion of the PAMSIMAS projects to serve additional communities within the village through the use of village funding.
- Ongoing support from the LG to assist villages with financing from either DAK or APBD to complement village funds in system expansion and in supporting KPSPAM where necessary for system operation and maintenance
- Establishment of a village water and sanitation committee (comprising both men and women) which may be an extension of the original KKP to provide advice and support to the village government regarding improving water and sanitation infrastructure.
- Villages where the infrastructure provided was sound and provided good quality water in sufficient quantities to provide reliable and regular supply at all times of the year.
- A financially sustainable KPSPAM or BUMDes, that is, village communities that are willing and able to pay for PAMSIMAS water.

### 5.2.4 Some Issues with KPI and Attribution of Sanitation & Hygiene

The IET concludes that the definition of WSS functionality is too narrow, and this may have led to systems that do not provide a regular and reliable supply of water, and in sufficient quantities for at least domestic use, being considered as fully functional. This was the experience of the IET during the fieldwork, where just 13 of the 42 systems surveyed were classified as fully functioning, whereas the MIS recorded 33 as fully functioning. Functionality of systems is not a stand-alone metric since it keys into both KPI 1 (people with access to sustainable improved water sources) and KPI 3 (WSS effectively managed & financed), so any inaccuracies in the functionality rating will have a direct linear impact on KPI 3 but will magnify the impact on KPI 1; in the worst-case scenario KPI 1 would be inflated by the number of people that should be receiving a regular and reliable supply of water.

Further, and in view of the lack of comprehensive baseline data for improved sanitation and good hygiene practices, there is some uncertainty in attributing the successes in these areas to PAMSIMAS. This is exemplified by the IET's HH survey that found a significant proportion of households had improved sanitation facilities and good hygiene practices before the PAMSIMAS programme.

## 6. CONSIDERATIONS FOR FUTURE WASH PROGRAMMING

In conducting this review, the IET has accumulated considerable insights of the key drivers and barriers to success of the programme. These insights have been used to develop a set of considerations that have the potential to inform future sanitation programming that employs an output-based financing model.

This section starts out by answering KEQ 3, followed by a set of other considerations categorised under the Parent Programme and on DFAT's Involvement in any future rural WASH programme.

### 6.1 KEQ 3: WHAT ARE THE KEY LESSONS FROM PAMSIMAS FOR FUTURE PROGRAMMING?

#### 6.1.1 How Could PAMSIMAS Taken a More Strategic Approach on Gender and Disability?

##### *Gender*

All the evidence suggests there is a greater likelihood of PAMSIMAS succeeding when women are involved in decision-making and management, and this should be the thrust of a new programme, including engaging more strategically with men on gender equality issues:

- Any new programme should consider monitoring beyond the quota of women set for participation in various fora and institutions and move to tracking the quality of women's engagement (particularly the extent to which they can influence decisions). Clearly, this will involve new or additional performance indicators but it will also require suitable approaches that reflect an understanding that women are not a homogeneous group. There are power, social, economic and other inequalities among women that influence their access to and benefits from a program

such as PAMSIMAS. A new programme needs to design, implement and monitor inclusive approaches to engaging diverse women, including marginalised and the elite.

- PAMSIMAS did not work strategically with men to build their commitment to and awareness of the importance of WASH. In a new rural WASH programme, consideration should be given to a more sustainable approach to influencing village development more broadly, which must also involve men in a more strategic way. Building men's awareness of, and commitment to, clean water, health and hygiene may help to influence broader village development processes to better prioritise WASH.

### *Disability*

A future national rural WASH programme should carry over the guidelines and approaches for disability inclusion developed through the support of DFAT in PAMSIMAS, but with some modification:

- The participation of people with disabilities needs to be improved at all stages of a DID project.
- Local governments and facilitators lack the networks to be able to identify and effectively engage people with disabilities and Organisations for People with Disability (OPDs). A pathway should be developed to locate and engage with district or provincial OPDs to facilitate engagement of local people with disability.
- There needs to be more awareness raising in the wider community to address the barriers that exist where communities believe they can effectively represent people with disability.
- Any monitoring of DID projects needs to go beyond the number of facilities built and track the quality of infrastructure and whether it is accessible as per the technical guidelines, based on input from people with disability. Non-technical audits could be conducted by OPD/people with disability as was modelled by the IET.

## 6.1.2 What Factors Need to be Considered When Designing Rural WATSAN Programmes that Would Maximise Opportunities for Scaling-up in a Decentralisation Context?

Provision of water supply and basic sanitation facilities for small, isolated communities requires a particular approach and set of skills which lends itself well to a CDD approach provided effective community facilitation methods are practised. However, scaling up of these systems to supply a larger group of sub-villages and villages in a decentralisation context offers a different set of challenges. Some of these additional challenges are as follows:

- As the systems are scaled-up they become larger and more complex. They may involve a larger number of separate systems or it may be more efficient to supply several villages by means of a single system, depending on water resources. This will require increased technical, financial and management capability from the KPSPAM or other form of operator thereby requiring additional ongoing technical assistance from program implementers and the different levels of government.
- Under decentralisation, responsibility for WASH is at the district and village level. As the systems are scaled up, financing needs to be available to enable the districts and villages to implement larger systems, which will also require capacity building and TA. Further, an enabling environment at the local level needs to be fully established to support the mainstreaming and sustainability of the CDD approach through, for example, regulation, budget, and M&E systems.
- As the systems are scaled up, so the water resource requirement becomes greater. Under these circumstances, appropriate regulation of water resources is critical as is the efficiency of the use of these resources. Additional technical support is required to ensure that the most efficient systems are designed and that water resources are properly evaluated. This may require skills beyond the village and district level capability.
- While the provision of basic sanitation as provided under PAMSIMAS to date is within the capability of the local PUSKESMAS, as the systems are scaled up and the wastewater situation becomes more critical, it becomes necessary to move beyond purely on-site sanitation such as to develop a faecal sludge management programme (requiring septic tank de-sludging and sludge treatment facilities) as well as a system for managing grey water disposal. This may require coordination between the various levels of government to provide technical solutions and possible regional solutions for sludge collection and treatment.

## 6.1.3 What Could Have Done Differently to Enhance Sustainability of WATSAN Systems?

- At the outset, an appreciation that not every village will be suitable for the PAMSIMAS programme in its current form would have helped in the drawing up more rigorous selection criteria. These criteria should include the tangible and "soft" factors that have been identified by the IET in the most successful villages, as presented in Section 5.2.3.

- Once a village has passed the selection process and viewed as having the majority of households able to pay for water, there could have been a mechanism in place, possibly a local law or regulation (PERDA), that promoted the payments of fair water tariffs. This is particularly so since this evaluation and previous surveys have identified payment of tariffs with better functioning WSS. Clearly, this PERDA should include a safety net for those households assessed to be unable to afford the monthly tariff.
- Funding could have been made more flexible to account for any unanticipated issues, such as the need to drill more than one well or bore hole if previous efforts failed; and additional financing for off electricity grid WSS or where power lines need extending.
- While regulations have been put in place to ensure that village governments consider WASH in their development planning processes, there are no such regulations that obligate village to include WASH projects in their plans. If starting again, this seems an obvious area to amend, if practicable, to promote sustainability. The IET have found that several villages covered by the fieldwork had consistently not included WASH in their development plans and it is conceivable that this has been a widespread practice that has held back the wider coverage of water across villages. This deficit in water coverage across villages is exemplified by the MIS data (see also Section 5.1.1).
- Put in place robust channels of communication between villages to compare notes, ask questions, find solutions, and just receive reassurance from others that PAMSIMAS can be made to succeed. Successful villages need to be showcased more and exchange visits organised for cross-learning and to re-energise struggling villages.

#### 6.1.4 How Could Cross-Sectoral Collaboration be Improved?

PAMSIMAS is a huge and complex programme that involves government from central right through to the village levels. While the IET have identified that cross-sectoral collaboration has worked well, improvements could be made. For example, by:

- Including other relevant directorates and ministries in the institutional arrangements, such as the Directorate of Sanitation for ensuring quality of sanitation infrastructures that would pave the way toward safely managed sanitation; the Ministry of Education, Cultural, Research and Technology for school sanitation; and Ministry of Women Empowerment and Child Protection to support gender equality elements.
- Ensuring that all relevant ministries/implementing agencies are involved in the village selection process to open opportunities to link the programme with other relevant initiatives.
- Continuing to strengthen the WSES working group at provincial and district levels to enable it to play critical roles in cross-sector coordination and collaboration; sector priority advocacies to district and village governments; creating an enabling environment for CDD approach mainstreaming and sustainability; to facilitate collaboration with INGOs local NGOs, or the private sector, and to assist in joint M&E.

## 6.2 PARENT PAMSIMAS PROGRAMME

### 6.2.1 A More Holistic Future Programme

Any new national WASH programme should consider how it could develop a more holistic approach by including waste management projects incorporating improvements to village drainage system for the disposal and treatment, if necessary, of septic tank effluent and grey water. Some consideration should also be given to the quality of sanitation infrastructure, particularly septic tanks, and availability of local de-sludging and septage disposal. It would be highly beneficial to also have a greater focus on water resource management in relation to the protection of water sources from over abstraction, degradation from saline intrusion, and from the impact of climate change. This is likely to involve greater regulation of private wells, and other protection strategies.

### 6.2.2 Governance

#### *National Level*

A new programme should consider:

- Exploring the financial options to support post-construction or at the operational and maintenance stage. One such option is the OPOR (*operasi, pemeliharaan, optimalisasi, dan rehabilitasi* - operation, maintenance, optimisation, and rehabilitation) initiative under the MPWH. The Regional Incentive Fund (Dana Insentif Daerah, DID) could also be explored through consultative discussion with Ministry of Finance. Performance-based grants for districts that are successful to improve the sustainability is also worth considering as financing option.
- Formalising and operationalising the draft guidelines for the governance of community-based rural water and sanitation programmes, design, and management. Finalising these guidelines is a critical step but equally important is operationalising the guideline and creating workable delivery mechanism.

### Provincial Level

A new programme should consider clarifying the roles of provincial government especially for post-construction support. It is the view of the three provincial governments engaged with during the fieldwork that post-construction support was the sole responsibility of district government.

### District Level

- PAMSIMAS has succeeded in supporting district government to mainstream the CDD through several replication projects. A similar effort for ensuring sustainability should be created from an early stage in any new programme, by advocating district government to provide financial and human resource capacity support to villages.
- A new programme should consider clarifying the relationship between community-managed organisations (KPSPAM or BUMDes) and PDAM. Although PAMSIMAS guidelines clearly state that PAMSIMAS locations should not be within the area of PDAM services, findings from the fieldwork discovered some villages with overlapping services. Several options could be explored such as a formal partnership between community-managed organisations and PDAM through a partnership agreement (Perjanjian Kerja Sama) or technical assistance and capacity building support (Pembinaan teknis) from PDAM to community-managed organisations regulated through a MOU or similar agreement.
- Consideration should also be given to the clarification of the financial model and district's support mechanism for the KPSPAM associations. FGDs at district level involving KPSPAM associations suggested that they feel isolated since the majority of their funding ceased at the end of 2021. They were not clear about who their main partner and responsible agency was at local level, and most were unable to provide services due to lack of resources.

### Sub-District/Kecamatan Level

During the fieldwork, the IET did not identify any sub-districts that had a significant involvement in the programme. This is surprising since one of the key tasks of the sub-district head is to assist and supervise the implementation of village activities (Article 225 of Law No. 23 of 2014) that, presumably, includes PAMSIMAS. Sub-districts are headed by appointed career civil servants<sup>66</sup> who are well-equipped for their roles, so it would be advantage for a future programme to improve the level of engagement between sub-district and village government levels in supporting the sustainability and expansion of WSS infrastructures and services to help achieve the GOI's targets. In addition, the sub-district level could play a critical role in facilitating cooperation between villages especially those that shared water resources which often caused tension between villages, and in showcasing high performing villages in support of those struggling.

### Village Level

- A new programme should consider providing clear guidance on the institutional set up and support channels for the community-managed organisations. Currently, there is some confusion over what form KPSPAM should take in the longer-term, and whether they should become BUMDes and so become the responsibility of village governments.
- Asset management is another issue that warrants further consideration. The issue of asset management was highlighted during the discussion with local stakeholders and with MOVDT. The asset ownership and management will impact on the ability of district and village governments to allocate funds for rehabilitation and expansion. KPSPAM are classified as a private organisation, which makes allocation of funds challenging for village government. Therefore, guidelines on asset management of community-based water supply and sanitation infrastructure should be made available for local stakeholders especially at the village level.
- As the frontline government body, the village government roles in implementation of programme and ensuring sustainability are critical, and greater attention was given to the roles of village government in PAMSIMAS III. However, a mechanism to keep the sector priority high at village level should be developed, as is the case for stunting and mother and child health.

## 6.2.2 Results Framework, Baseline Data, and the MIS

### Results Framework

- It would be advantageous to review the PAMSIMAS results framework during the development phase of a new national programme. Some weaknesses have been identified in the current results framework and these have been summarised in Section 4.5 and described fully in Appendix 4 (*embedded file 2*).

<sup>66</sup> [Subnational levels of Indonesian government: cities, regencies, and sub-districts administrations](#)

- It would also be advantageous to fully align the results framework with the programme's ToC and include higher-level outcome indicators. These indicators could be baselined and tracked through a longitudinal study of a selected group of households in each village that represent the socio-economic strata in communities, which would make this a manageable annual task. Besides, the disparate nature of villages across the country means that no matter what method of sampling is employed, the results are unlikely to be representative of the wider programme.
- The definition of WSS functionality should be reviewed to allow the identification of systems that are fully functional but unable to supply a reliable and regular supply of water that meets the requirements for at least domestic use. Currently, to close the circle on KPI 3 data is required on KPI 10 (satisfaction of consumers), but under the current framework this data is not collected routinely or widely. This leaves KPI 3 susceptible to inaccuracies and projecting an over optimistic view of WSS functionality and the adequacy of water they supply.

### Baseline Data

- The social mapping conducted through IMAS on sanitation, hygiene and other aspects of village life does not appear to be comprehensive enough to act as a robust baseline. This has limited attribution of improvements in sanitation and hygiene to the PAMSIMAS programme.
- A new programme should consider collecting such baseline data, and other data related to any suggested outcome KPI, at the time of village selection.

### The MIS

Consideration should be given to increasing the accessibility of data held on the MIS. One way of achieving this is to design and introduce a new interface that allow users to query data online across more than one module to obtain bespoke reports. This would allow key stakeholders to use the MIS independently as a programme management tool.

## 6.3 DFAT'S INVOLVEMENT GOING FORWARD

As mentioned in Section 5.1.1 (*Would Benefits Last After DFAT Funding Ceases?*), the concern going forward is that the level of capacity building and TA in the recently concluded PAMSIMAS is unlikely to be sustained in a future programme without external support.

A critical role for DFAT in future would be in sustaining the focus on the software elements of the programme to:

- Maintain quality delivery and to improve the prospects of sustainability and growth in coverage of WATSAN in existing a new villages. Sustainability and poor growth of water coverage should be key concerns going forward.
- To improve M&E at the village level by increasing the capacity of facilitators, sanitarians, and other involved in collecting programme data, particularly associated with baselining and WSS functionality so that accurate data is available to act as an early warning system for proactive programme management.

Given DFAT's strong focus on gender equality and disability inclusion, there are potentially other important roles for DFAT going forward:

- To pilot and share effective strategies for promoting women's influence, empowerment, and inclusive development (based on an understanding of the intersectionality of women's various identities).
- In continuing to improve the DID model, which includes enhancing strategies for the effective engagement of people with disability/OPDs in all stages of the DID; capacity and technical support to facilitators to meet DID standards; and improved monitoring of built facilities against accessibility standards.

There is also room for DFAT to continue to influence strategies and policies affecting the new programme and the wider national sector by maintaining its support for high level surveys, studies and evaluations of a new programme and to influence the government to feedback important learnings from these to develop the programme further, and to cascade appropriate learning into other relevant initiatives.

## FIGURES &amp; TABLES:

Table A.5.1: PAMSIMAS Funding by Source<sup>67</sup> Funding Amount (USD million)<sup>68</sup>

Funding Source <sup>69</sup>	PAMSIMAS 1	PAMSIMAS 2	PAMSIMAS 3	Total
World Bank - IDA	137.50	---	---	137.50
World Bank – IBRD	---	99.90	300.00	399.90
DFAT	46.40	44.00 <sup>70</sup>	7.80	98.20
APBN	51.90	62.59	489.86	604.35
LG/Village	49.20	22.91	213.38	285.49
Community <sup>71</sup>	36.50	28.63	66.22	131.45
CSR	---	---	1.16	1.16
<b>Total</b>	<b>321.50</b>	<b>258.02</b>	<b>1078.52</b>	<b>1658.05</b>

Table A.5.2: PAMSIMAS Funding by Component (Cost USD million)

Component	WB	DFAT	APBN	LG/Village	Community	Total
Community Empowerment & Local Institutional Development	141.5	15.8	78.4	---	---	235.7
Improving Sanitation & Hygiene Practices	13.5	14.1	67.6	---	---	95.2
Water Supply & Public Sanitation Infrastructure	286.0	63.2	207.6	250.5	121.7	928.9
District and Village Incentives	5.4	1.7	191.2	29.0	9.8	237.1
Implementation Support & Project Management	91.2	3.4	59.5	6.0	---	160.1
<b>Total</b>	<b>537.5</b>	<b>98.2</b>	<b>604.4</b>	<b>285.49</b>	<b>131.5</b>	<b>1657.01</b>

<sup>67</sup> Data sourced from WB Project Appraisal Documents for PAMSIMAS 1, 2 and 3, the WB PAMSIMAS 3 Virtual Closing Mission Nov4-30 Aide Memoire and the DFAT 2021 Annual Report for PAMSIMAS and KOTAKU.

<sup>68</sup> PAMSIMAS 3 funding based on budget – actual total expenditure by end 2021 was slightly higher than that budgeted, although some expenditure still available from the loan and grant budgets.

<sup>69</sup> DAK, HAMP and other associated funding not included in tabulation.

<sup>70</sup> Part of the DFAT grant (unspent during PAMSIMAS 2) was converted to as WB grant that was utilised in PAMSIMAS 3

<sup>71</sup> Based on 20% contribution by community – 4% in-cash and 16% in-kind at Rp275 million/village.