



Enhancing Rural Development

Through Transparent
Governance and Data-Driven
Decision Making



Project snap shot



Country: Papua New Guinea

Partner institution: Department of Implementation & Rural Development (DIRD)

Donor: DFAT

Duration: 2020 – ongoing

Project value and Catalpa's role: Co-design and technical partner supporting DIRD to operationalise a national information management system to strengthen transparency and evidence-informed allocation of rural development funding.

Background and Context

The Bilum initiative supports Papua New Guinea's Department of Implementation and Rural Development (DIRD) to strengthen public financial accountability through a national information system that captures project and service delivery data. This work enhances transparency, accountability, and equitable delivery of over \$650 million in development funding each year.

DIRD plays a central role in coordinating government policies and priority programs that impact the 87% of Papua New Guineans who live in rural areas. As part of its ongoing commitment to improving rural development outcomes, DIRD recognised the opportunity to enhance how district-level data is gathered, analysed, and used for decision-making. Bilum responds directly to this vision by providing a practical, locally grounded platform, mandated by GoPNG to facilitate DIRD's monitoring of subnationally focused grant funding.

Since 2020, funded by the Australian Government through DFAT, the program has partnered with DIRD to co-design and roll out a fit-for-purpose tool called "Bilum" that enables district and provincial reporting and provides a system-wide view of development indicators. The platform reflects a strengths-based, locally led approach—building on DIRD's deep contextual knowledge, strong provincial networks, and commitment to accountable governance. It supports decision-makers to visualise the distribution of services and assets and allocate resources more effectively based on real community needs.

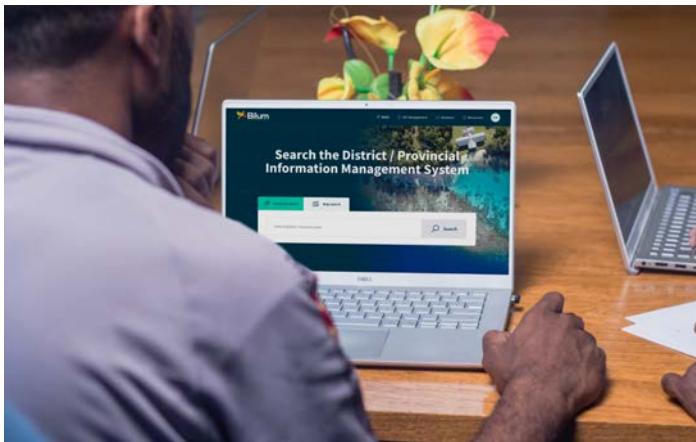


Image captions: (Left) DIRD officer navigating feature of the District Information Management System.

(Right) Sub-national Bilum user with DSIP files in paper form.

Bilum enables reporting at the district and provincial levels, letting DIRD focus on project appraisal. It also maps out service delivery and priority development indicators for each individual district and province, giving local administrations the necessary insights for the appropriate allocation of funds. The functional and efficient project management system empowers DIRD and local communities to enhance rural development outcomes through access to accurate and accessible information and insights for improved planning and management of resources.

What we set out to do



The work contributes to:

1. **More effective and equitable allocation of rural development funds**, informed by district priorities and comparative needs.
2. **Greater transparency for government and communities**, supporting accountable use of public resources.
3. **Improved mapping of assets** — including 3,737 schools, 3,472 health facilities, and 25,000 km of roads—to guide planning for both routine service delivery and climate-related vulnerabilities.
4. **Stronger data-driven decision making** within DIRD, reinforcing existing leadership and capability within the department.
5. **Enhanced collaboration between national and provincial teams**, with over 500 users now actively engaging with the platform.

Impact

Bilum has been co-developed to support DIRD in tracking GoPNG's K 1.8bn in Service Improvement Programs (SIP) expenditure as well as providing District Information Management (DIMS) data providing district development and planning data across sectors including on 3,737 schools, 3,472 health facilities, and over 25,000 km of roads. Currently in phase 3, focusing on transition to DIRD, the program has:



Delivered outreach to 98 electors and reached 1,023 subnational users



System approved as compliant to GoPNG standard



Comprehensive helpdesk functions transitioned



Governance mechanisms built, alignment with internal systems through corporate plan and approval for legislation to mandate as a national system

In monitoring and evaluation undertaken in 2025, DIRD staff describe the digital platform as easing the burden of manual reporting, allowing them to complete tasks faster and with less stress. Staff highlight that training and onboarding helped them overcome initial hesitancy, and they now feel more capable using technology in their daily work. Where DIRD staff were facilitated to reflect on the lessons from the Bilum project, one officer observed that key to the program's success was Catalpa's "collective approach to improve a system that was not producing the results as expected".

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“Catalpa's collective approach to improve a system that was not producing the results as expected”

— DIRD Officer

By supporting DIRD in its long-term vision for a more transparent and responsive rural development system, Bilum strengthens institutional capability, supports locally shaped reform, and embeds continuous learning across the network of district and provincial officers.

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“[Bilum] took away our frustration. We cut costs, reduced workload and now we are reporting in real time.”

— Nuku District Administrator Mr Nengai

Monitoring against two of the Program’s EOPOs show:

- 1. EOPO 2: Targeted SIP recipients are using the Bilum Platform to capture and report on SIP/DIMs data at the district and provincial level.** Achievements include: strengthening DIRD’s capacity to (i) plan and manage roll-out nationally - DIRD led governance established and functioning, (ii) incentivise and support improved quality of SIP and DIMS reporting by subnational partners - national outreach delivered as scale and SIP reporting submitted by subnational partners through the system, and (iii) continue platform development in response to user needs and operating conditions - establishment of DIRD led mechanisms to approve platform improvements, feedback and usability testing supported 132 changes across phase 3.
- 2. EOPO 3: DIRD staff demonstrate that they have the resources, skills, confidence and ability to manage the Bilum Platform.** Achievements include (i) structured capability development and assessment of DIRD users - 34 DIRD staff trained to effectively onboard subnational users with 19 reaching competency against a DIRD and Catalpa co-design competency framework , (ii) institutionalisation of Bilum functions in DIRD roles and corporate systems - working with DIRD counterparts to review, draft and implement policy changed to embed use of the system within DIRD organisational and performance management mechanisms (iii) transition of key operational functions (including ICT helpdesk), and (iv) qualitative evidence of behavioural and organisational change within DIRD.

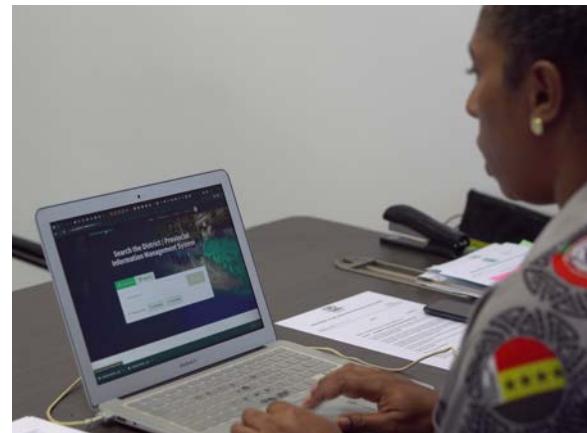


Image caption (Left) DIRD Officers discussing data entry. (Right) DIRD Officer utilising the system.

Key informant interviews with DIRD officers suggest that Bilum has driven both structural and behavioural change—affecting internal governance, collaboration and operational discipline. Staff described a shift toward stronger traceability and transparency in how the department receives and reviews SIP reporting. One officer noted:

“Before Bilum, we accepted reports anyhow and gave feedback later; now everything is uploaded in the system, making our work transparent and traceable.”

— Senior DIRD officer

DIRD staff also reported improvements in operational efficiency and effectiveness in delivering DIRD's coordination and monitoring mandate. Officers can now access shared analytics and datasets through dashboards, enabling real-time monitoring of reporting progress and improved coordination across teams. Interviewees described reduced internal silos and greater alignment of workplans with Bilum reporting timelines, with some noting a sense of shared purpose and even healthy competition between regions that has supported responsiveness and collaboration.

Working side-by-side

Catalpa's role has been to walk alongside DIRD to co-develop and operationalise the Bilum platform in ways that reinforce local ownership, system-level thinking, and ongoing learning.



Image caption: DIRD Officers work in groups with support from Catalpa Bilum Team to review and agree on the tools and resources needed to deliver Critical Skills training at the sub-national level.

Phase 3 placed strong emphasis on building DIRD's ability to independently manage Bilum as a national system—spanning platform governance, rollout delivery, capacity building, and ongoing ICT support. Bilum's digital and programmatic components were implemented using a human-centred design approach and delivered in close partnership with DIRD to embed the reform into Government systems, policies and day-to-day ways of working. As one senior DIRD officer observed:

“Catalpa didn't hold back anything – they gave us everything. And they made sure Bilum was always ours.”

— Senior DIRD officer

Catalpa's approach to working with DIRD included:



1. System Design & Development

Co-designed a cloud-based platform tailored to the realities of PNG decision-makers at both national and subnational level - ensuring alignment with GoPNG policies including on security, privacy and data governance. Increasing capacity of national level staff to manage and verify content to ensure the Platform can evolve sustainably with policy and planning changes across the life of its implementation.



2. Data Consolidation & Insights

Developed tools that bring existing district and provincial information together, supporting equitable and evidence-informed decisions across diverse socio-economic and geographic contexts. The first subnational focused Platform to bring together these data sets in PNG - making it an important consolidation of sector level data - increasing transparency of subnational planning and development.



3. Local Testing & Iterative Learning

Worked directly with district administrations to trial and refine the system. Their insights guided iterative improvements, ensuring the platform fits the way officers work and supports their priorities.



4. Capacity Strengthening & Training

Built capacity of DIRD to support more than 1000 provincial and district officers through hands-on training and mentoring, enabling teams to manage data entry and system use independently with minimal external support.



5. Enhanced Reporting & Accountability

Built reporting and quality assurance features that complement existing accountability processes, supporting DIRD's commitment to transparent and accountable fund management.



6. Accessibility for Remote & Climate-Vulnerable Areas

Designed offline functionality and automatic synchronisation to ensure every district can participate fully, regardless of connectivity or geography.



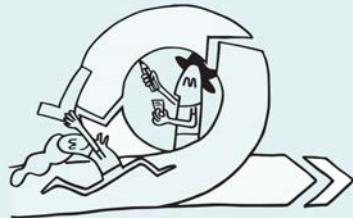
7. Sustainability & Handover

The current phase focuses on embedding the platform within DIRD's systems, strengthening institutional roles, and supporting a smooth transition to full internal stewardship.

Throughout, Catalpa has taken an approach grounded in listening, partnership, and respect for local expertise. The work reflects Catalpa's approach to partnership: valuing existing strengths, promoting local leadership, taking a systemic view, embedding inclusion and access considerations, and fostering reflective practice and mutual accountability.

Learning and adaptation

Throughout the Bilum program, DIRD and Catalpa applied an adaptive, partnership-based approach shaped by ongoing learning from district and provincial engagement. Several lessons have guided the way the platform has continued to evolve:



1. User feedback is central to sustainable system adoption

Early testing with district administrations highlighted differences in digital familiarity, connectivity, and workflow practices. This reinforced the value of rolling out the system iteratively and incorporating user feedback at each stage. The project adapted by refining features to be more intuitive and responsive to real-world use, enabling officers across remote and higher-capacity districts to confidently enter and manage data.



2. Working with existing strengths supports lasting capability

DIRD staff brought deep contextual knowledge and a strong commitment to accountable rural development delivery. Recognising this, the program emphasised co-design and hands-on collaboration rather than external substitution. This strengths-based approach ensured that Bilum processes aligned with DIRD's own planning rhythms, internal reporting structures, and national policy frameworks—supporting long-term institutionalisation of the platform.



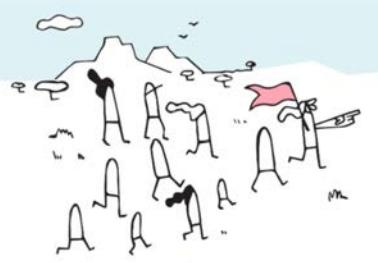
3. Practical accessibility features expand equity of use

The diversity of PNG's geography and infrastructure underscored the need for flexible design. Offline data entry and automatic synchronisation were introduced to ensure officers in low-connectivity or climate-affected regions could fully participate. This reinforced the importance of designing for inclusivity from the outset and adapting technical features to environmental realities.



4. Embedding continuous learning strengthens governance and decision-making

As more districts began entering data, DIRD identified new opportunities to use insights for planning, oversight, and communication. This prompted adjustments to reporting features and data visualisation tools to better support decision-makers. The project adopted a “learning loop” approach—using real data use patterns to refine the system and reinforcing DIRD’s own capability to drive evidence-informed improvements.



5. Long-term sustainability requires planned, gradual handover

This transition is multifaceted including policy, legislative and compliance approvals or reforms, increasing capacity to manage and sustain digital public goods, planning financial sustainability and engagement across government to ensure ownership and alignment with GoPNG’s broader digital transformation agenda.

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“Catalpa leadership over the years has been mentoring emerging DIRD leaders.”

— DIMS Focal Point

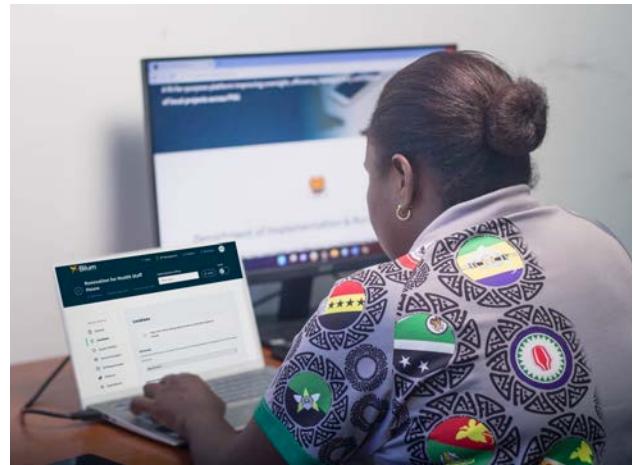
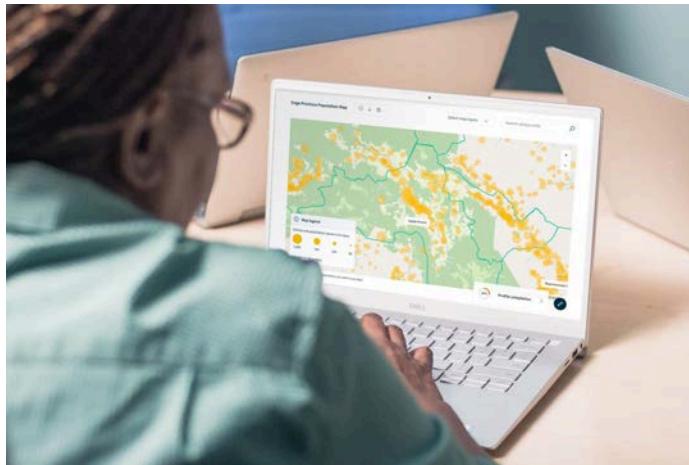


Image caption: DIRD Officers navigating the Bilum Platform's interactive mapping tools, and recording SIP project details through the Project Manager feature.

Thanks for reading!

Whether you'd like more information, to discuss a project, partnership, or exchange ideas, we'd love to hear from you.

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