

Bougainville PMSC Road Project

KA PROJECT REFERENCE: 19289P
INDUSTRY: Civil Infrastructure – Roads & Highways
DISCIPLINES: Civil Engineering, Project Management

PROJECT SUMMARY

CLIENT

TSSP Australian Govt/GoPNG

LOCATION

1. North Bougainville – Siara to Arakawau Bridge.
2. South Bougainville – Ta'ake to Biun, Buin to Kangu and Buin to Sovele.
3. Central Bougainville – Arakawau Bridge to Ta'ake and Morgan Junction to Sovele via Panguna

PROJECT TYPE

Roads and Highways

YEAR COMPLETED

2018



PROJECT DESCRIPTION

The Transport Sector Support's (TSSP) goal is to ensure improved governance and performance in the government of Papua New Guinea's delivery of transport infrastructure services through effective use of resources. The four main objectives include:

- Supporting operational reform in the transport sector agencies through improved public sector administration and reform programs.
- Strengthening linkages between the transport sector agencies and central agencies so that service delivery and reform programs are actively supported.
- Supporting improved performance of provincial, district and local level governments to deliver transport services in selected locations
- Supporting delivery of an affordable, contestable and prioritised national transport network.

This project included 397km of road maintenance and reconstruction across Bougainville. There were 265 Work orders completed for routine maintenance, 55 Periodic Maintenance Contracts were executed and 4 major road upgrade projects were completed. The Project was divided in to three separate sections:

1. North Bougainville: (133km)
2. South Bougainville: (137km)
3. Central Bougainville: (127km)

PROJECT ROLE

KA as the Road Maintenance Project Management Services Consultant (PMS) working with the Department of Technical Services (DTS) in the Autonomous Region of Bougainville was responsible for:

- Project management and technical input for work to be entirely undertaken by local (Bougainvillean) contractors, geotechnical engineers and surveyors
- Active Health, Safety, Environment & Community (HSEC) education and enforcement program
- **Active Capacity Building Program**, which involved teaching local contractors how to conduct tendering, financial management, technical management and best and safe practices i.e., HSEC etc.
- Social safeguards training and consultation that covered:
 - Public Road Safety education and signage
 - HIV&AIDS Awareness program
 - Equal opportunity
- Stakeholder and community engagement implemented via various mediums: community meetings, radio programs, public notices

In terms of poverty reduction and gender equality KA delivered 11,504 individual Community based work agreements which were completed to a combined value in excess of PGK10.54M. Community participation in the project reached 25% of the total maintenance budget in the FY2017/2018 and female involvement was 39% of all community work programs completed.

Bougainville PMSC Road Project

Project Reference: 12316

Industry: Civil Infrastructure - Roads & Highways

ASSIGNMENT NAME:	APPROX. VALUE OF THE CONTRACT:
Bougainville PMSC Road	10,000,000 AUD
LOCATION & COUNTRY:	DURATION OF ASSIGNMENT (MONTHS):
Autonomous Region of Bougainville, PNG	77 Months
NAME OF FUNDING AGENCY:	TOTAL NO. OF STAFF-MONTHS OF THE ASSIGNMENT:
TSSP Australian Govt/Govt of PNG	32 Person-Months
ADDRESS OF AGENCY:	APPROX. VALUE OF THE SERVICES PROVIDED BY YOUR FIRM UNDER THE CONTRACT:
National Capital District (NCDC), Papua New Guinea	Construction Maintenance Cost PGK40.0M per annum Project Management Consultancy Cost PGK12.0M
START DATE (MONTH/YEAR): COMPLETION DATE (MONTH/YEAR):	NUMBER OF PROFESSIONAL STAFF-MONTHS PROVIDED BY ASSOCIATED CONSULTANTS:
Start: July, 2012 Completion: December, 2018	N/A
NAME OF ASSOCIATED CONSULTANTS, IF ANY:	NAME OF SENIOR PROFESSIONAL STAFF OF YOUR FIRM INVOLVED AND FUNCTIONS PERFORMED:
N/A	Bruce Nicholson – Project Director Paul Thompson – Team Leader

NARRATIVE DESCRIPTION OF PROJECT:

The outcome of this project included 397km of road maintenance and reconstruction across Bougainville as follows: North Bougainville: (133km), South Bougainville: (137km), Central Bougainville: (127km). 100% of the annual TSSP target expenditure for calendar years 2015/2016, 2017 and 2018 was achieved. There were 265 Work orders completed for routine maintenance, 55 Periodic Maintenance Contracts were executed and 4 major road upgrade projects were completed.

KA managed and successfully delivered this Project on time, on budget and to the quality standards (functional and performance) expected and agreed between the Client, Contractor and KA.

In terms of poverty reduction and gender equality KA delivered 11,504 individual Community based work agreements which were completed to a combined value in excess of PGK10.54M. Community participation in the project reached 25% of the total maintenance budget in the FY2017/2018 and female involvement was 39% of all community work programs completed.

DESCRIPTION OF ACTUAL SERVICES PROVIDED BY YOUR STAFF WITHIN THE ASSIGNMENT:

The goal of TSSP initiative was to ensure improved governance and performance in GoPNG's delivery of transport infrastructure services through effective use of resources by supporting; improved public sector administration and reform programs; strengthen linkages between the transport sector agencies and central agencies; support improved performance of provincial, district and local level governments to deliver transport services; support delivery of an affordable, contestable and prioritised national transport network. KA as the Road Maintenance Project Management Services Consultant (PMS) working with the Department of Technical Services (DTS) in the Autonomous Region of Bougainville was responsible for:

- Project management and technical input for work to be entirely undertaken by local (Bougainvillean) contractors, geotechnical engineers and surveyors
- Active Health, Safety, Environment & Community (HSEC) education and enforcement program
- Active Capacity Building Program, which involved teaching local contractors how to conduct tendering, financial management, technical management and best and safe practices i.e., HSEC etc.
- Social safeguards training and consultation that covered:
 - Public Road Safety education and signage
 - HIV&AIDS Awareness program
 - Equal opportunity
- Stakeholder and community engagement implemented via various mediums: community meetings, radio programs, public notices

Summary of Services:

In summary, the Consultant:

- a. Assist the Provincial Works Office (PWO) with the forward planning and programming of routine and periodic maintenance, including the preparation of annual work-plans, works packages and budgets.
- b. Assist the PWO assemble field data and write scoping notes required by DOW Headquarters to prepare terms of reference (ToR) for the larger, more complex Investigation, Design and Bid Documentation (IDBD) consultant services contracts valued over PGK500,000.
- c. Assist the PWO to survey, scope, prepare the engineer's estimate and prepare the tender package for consultant services for contracts valued under PGK500,000; assist the PWO procure and manage the consultant services.
- d. Assist the PWO to instigate, coordinate and supervise site surveys and engineering investigations, as may be required for the design and tender documentation of major and minor works projects.
- e. Assist the PWO prepare and finalise the tender documents, including engineer's estimate for major (above PGK500,00) works contracts and help issue the Notice of Commencement and administer the commencement of the Works. For major works contracts, the Consultant is assigned duties as the Engineer's Representative's Assistant.
- f. Assist the PWO to prepare and finalise the tender documents, including engineer's estimate for TSSP-funded pro-forma works contracts (up to PGK500,000), and help with the procurement process through to commencement of the Works.
- g. Assist the PWO to prepare and negotiate Community Works Agreements (CWAs), as required.
- h. Be the Engineer's Representative's Assistant on behalf of the Employer's Representative (DOW) for larger road rehabilitation FIDIC-style4 contracts that are funded through TSSP5. The Engineer (Regional Works Manager (RWM)), through the Engineer's Representative (Provincial Works Manager – (PWM)) will formally delegate authority to the Consultant (as Engineer's Representative's Assistant). The Engineer will formally delegate authority to the Consultant as Engineer's Representative's Assistant as set out in the special conditions for each individual contract. The Contractor (and the Consultant) will be advised in writing by the Engineer that the Engineer delegates and confers all of the powers and authority vested in the Engineer under the provision of the Conditions of FIDIC, with the exception of those clauses listed in the Schedule of Non-Delegated Powers set out in the letter of appointment. Non-delegated powers will likely include, but not necessarily be limited to:
 - i. Issuing notice to commence work;
 - ii. Any variation of any kind to the contract and the fixing of rates for a variation;
 - iii. Issuing take-over certificate(s);
 - iv. Final statement;
 - v. Final certificate;
 - vi. Defects liability certificate;
 - vii. Remedies;
 - viii. Settlement of disputes; and
 - ix. Default by the Employer.
- i. The Consultant will ensure that DOW, as the Employer's Representative, is guided by the Engineer's Representative's Assistant to follow the construction contract and fulfil all contractual obligations and responsibilities.
- j. In addition to delegated authorities specified in the construction contract, carry out other duties including assisting the PWM process contract variations and extensions; overall, ensure that all contractual timelines are being met and monitor actual and forecast cost and progress of the Contract.
- k. Assist the PWM (the Engineer's Representative) to manage smaller, less complex rehabilitation and maintenance contracts not styled on FIDIC; the Consultant will be responsible for assisting with Contract start-up and overall works supervision, quality assurance, payments, variations and other contract administration; the duties will typically cover the delegations listed in (h) above, but these shall not be formalised in the contract; overall, ensure that all contractual timelines are being met, and monitor actual and forecast cost and progress of the Contract.
- l. Assist the PWO to execute an internal technical audit function, including notifying the PWM when in the Consultant's view, materials at borrow sites, stockpiled or installed by a Contractor require independent laboratory testing; managing the independent testing; and financing the independent testing as a claimable Implementation Cost.
- m. Assist the PWO to organise, scope and deliver TSSP-funded works through Force Account operations, where pre-determined criteria for the use of Force Account have been met and approved by the Deputy Secretary (DS), Operations or the Regional Works Manager (RWM) and endorsed by TSSP; and to supervise such work to ensure timely and cost efficient.
- n. Provide structured capacity development and mentoring to DOW staff, including but not limited to a competency-based training needs analysis (TNA) at DOW Headquarters and regional and provincial DOW offices and provide each Client counterpart, at all levels, with an agreed measurable capacity development plan. Periodically review and update the plans. The skills transfer program shall be aligned with the TSSP ASA 6 and should build capacity in all areas of counterparts' responsibilities and involvement in TSSP, including but not limited to the following areas:
 - I. Preparing annual works plans, contract Scoping, estimation packaging and budgeting;
 - II. Outsourcing the preparation of Detailed Engineering and Design Services

- III. Strengthening construction contract preparation and procurement;
 - IV. Contract tendering procedures and tender assessments
 - V. Strengthening construction field supervision, contract management and administration;
 - VI. Ensuring Traffic management and Safety Compliance
 - VII. Applying FIDIC-style general conditions of contract; and
 - VIII. Mainstreaming GoPNG and TSSP, fraud and corruption, gender, HIV&AIDS and environmental policies.
- o. The Consultant shall also participate in all activities organised by DOW/TSSP to strengthen local contractor capacity, not limited to the topics detailed in Table 4: Allocated Duties – PMSC Support, Item (i)12. The Consultant is expected to participate in the preparation and implementation of publicly advertised, open classroom workshop/training, to small and medium sized road contractors. The Contractor shall ensure that its contractor training activities are not in conflict with its other responsibilities and duties.
 - p. Consultants are advised that the incumbent PMSC is currently (early 2019) preparing a Training Plan incorporating the elements described above. It is expected that the Consultant will use the existing Training Plan as a basis from which to expand and extend the capacity development activities throughout the term of this PMSC contract.
 - q. The Consultant is required to report on 'on-the-job' mentoring and skills transfer activities in the monthly progress reports.
 - r. Provide support to DOW at all levels to ensure the provisions of the DOW Gender Equity and Social Inclusion Policy and DOW HIV & AIDS Policy are included in the planning and implementation of all works.
 - s. Assist DOW to review GoPNG Schedule of Rates Contracts; and ensure only appropriate building materials are used on projects by
 - i. ensuring works contracts require timber or other building materials used in any way for the project has been sustainably harvested, or sourced from recycled building materials; and
 - ii. ensuring works contracts require any supplies or building materials used in any way for the project are not made of and do not contain any asbestos.
 - iii. ensuring works contracts require in the event that supplies or building materials provided or used in any way for the project do not comply with these requirements the works contractor must, immediately upon becoming aware of the non-compliance or on receipt of instruction from the Employer, replace the relevant supplies or materials at the contractor's own expense.
 - iv. include in its reports certification that supplies or building materials used in any way for the project are not made of and do not contain asbestos, and any timber has been sustainably harvested or is sourced from recycled building materials.
 - t. . Review Contracts and engineering designs for alignment with the following DOW/DFAT policies and strategies, where appropriate:
 - i. Gender equality and women's empowerment strategy, February 2016;
 - ii. Environment protection policy for the aid program, November 2014;
 - iii. Displacement and resettlement of people in development activities, July 2015;
 - iv. Development for all 2015 – 2020: Strategy for strengthening disability-inclusive development in Australia' aid program, May 2015.
 - u. In line with the requirements in Clause 7.2 The Consultant shall assist DOW in the scheduling review meetings, participating in reviews, collection and assessment of data and the maintenance of its Contractor Performance Evaluation (CPE) database including, but not limited to the inputting of data obtained onsite and during CPE meetings.
 - v. The Consultant shall help the PWM institute the Asset Management Branch's data collection and reporting requirements with the PWOs and contractors.
 - w. The Consultant shall proactively flag to DOW and to TSSP roads and bridges maintenance and rehabilitation issues affecting the delivery of TSSP-funded road services, and also opportunities for improving road transport sub-sector performance more generally, including improvements in DOW systems and processes as well as technical applications. This may include recommendations to TSSP to design and help deliver programs to strengthen local civil works contractors¹¹.
 - x. The Consultant shall support the PWM coordinate TSSP-funded road maintenance activities with GoPNG and other Development Partner-funded projects in the province. The Consultant shall provide a summary of all planned and concurrent, (GoPNG, Tax Credit, Australian and other Development Partner funded) road projects, indicating a brief description of scope, location, contract value, contractor, start date, % progress, expected end date, etc. in the monthly report.