

# Tanna Schools Cyclone Pam Recovery Project

KA PROJ REFERENCE: 16116V

INDUSTRY: Official Development Aid | Social Infrastructure | Education

DISCIPLINES: Architecture, Structural Engineering, Environmental and Social Safeguarding, Quantity Surveying, Inception, Due Diligence, Design and Documentation, Procurement, Construction Supervision, Contract Administration

## PROJECT SUMMARY

### CLIENT

Vanuatu Ministry of Education and Training (MoET)

Funded by Asian Development Bank, Japan Fund for Poverty Reduction (JFFR) GRANT-9181 VAN

### LOCATION

Tanna, Vanuatu

### PROJECT TYPE

Social Infrastructure | Education

### YEAR COMPLETED

June 2020



## PROJECT DESCRIPTION

In March 2014, Vanuatu was devastated by Tropical Cyclone Pam. Kramer Ausenco was awarded the contract to provide architectural and engineering design, procurement and construction administration and supervision of USD5M worth of infrastructure works to four (4) junior secondary schools located in Tanna, Vanuatu. The schools include Imaki, Lowiepeng, Ienaula, and Kwataperen Junior Secondary Schools. The project incorporated climate resilience, disaster risk reduction, and build back better principles in addition to other improvements identified to both existing buildings as well as new classroom buildings. This project was part of the recovery response and required a holistic approach to the reconstruction of high schools in Tanna. The project developed and updated several standard designs for the Ministry of Education and Training. All new buildings were designed to also function as community shelters during disasters, with facilities such as emergency power back-up, communications systems, as well as rainwater storage tanks. All sites were developed to have safe teaching spaces with adequate water supply and context responsive WASH facilities which used nil water. The project maximized the local participation by using local labourers and local material suppliers and personnel.

## PROJECT ROLE

Kramer Ausenco's role as Design & Supervision Consultant was all-in encompassing function that required development of the implementation strategy, carrying out initial site visits and inception investigations, develop a land due-diligence report, implement land agreements, develop environmental management plans, architectural and engineering design, develop bidding documents, procurement of the contractors/suppliers (ADB small works procurement) including administering the tender process and bid evaluation process, contract administration, and construction supervision with site-based supervisor for the duration of the construction project. Following this, KA also managed the defects liability period. Specific design services provided by Kramer Ausenco included architecture, structural engineering, environmental and social safeguarding, and quantity surveying.

## PROJECT DATASHEET

**Tanna Schools Cyclone Pam Recovery Project**

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| Education

<b>ASSIGNMENT NAME:</b>	<b>APPROX. VALUE OF THE CONTRACT:</b>
Tanna Schools Cyclone Pam Recovery Project	VUV 515M (~USD 5M)
<b>LOCATION &amp; COUNTRY:</b>	<b>DURATION OF ASSIGNMENT (MONTHS):</b>
Tanna, Vanuatu	36
<b>NAME OF FUNDING AGENCY:</b>	<b>TOTAL NO. OF STAFF-MONTHS OF THE ASSIGNMENT:</b>
Vanuatu Ministry of Education and Training (MoET)	65 person months
<b>ADDRESS OF AGENCY:</b>	<b>APPROX. VALUE OF THE SERVICES PROVIDED BY YOUR FIRM UNDER THE CONTRACT:</b>
Ministry of Education and Training PMB 9028 Port-Vila Vanuatu	VVV 78M (~USD 700k)
<b>START DATE (MONTH/YEAR): COMPLETION DATE (MONTH/YEAR):</b>	<b>NUMBER OF PROFESSIONAL STAFF-MONTHS PROVIDED BY ASSOCIATED CONSULTANTS:</b>
Start date: January 2017 Completion date: 30 June 2020	-
<b>NAME OF ASSOCIATED CONSULTANTS, IF ANY:</b>	<b>NAME OF SENIOR PROFESSIONAL STAFF OF YOUR FIRM INVOLVED AND FUNCTIONS PERFORMED:</b>
NGO Partner - Save the Children Australia (Vanuatu Office)	Saju Abraham – Team Leader / Project Architect Nicholson Garae – Site Supervisor Priscila Amkori – National Safeguards Specialist Peter Moodie – Project Director Jay Jameson – Vanuatu Country Manager

**NARRATIVE DESCRIPTION OF PROJECT:**

In March 2015, Tropical Cyclone Pam struck Vanuatu, causing one of the worst disasters in its history, displacing people, and leaving widespread damage to crops and infrastructure. Total economic damage and losses were estimated at Vt48.60 billion (\$441.35 million), equivalent to 64.1% of Vanuatu's gross domestic product. The Post-Disaster Needs Assessment completed by the government in collaboration with development partners concluded that Tafea and Shefa provinces were most affected, with the social sector (e.g., education and health) sustaining significant damage. The education sector's estimated medium to long-term recovery needs totaled \$62.30 million and it required immediate assistance. On 16 November 2015, the Asian Development Bank (ADB) responded to the government's request for an emergency assistance project to support school reconstruction by approving a US\$5.0 million Japan Fund for Poverty Reduction (JFPR) grant for the Cyclone Pam School Reconstruction Project. The project was designed to support recovery and rehabilitation efforts in the education sector and emphasized school infrastructure at junior secondary schools (JSSs) on Tanna Island in Tafea Province. It was designed on "build-back-better" concepts as per the Sendai Framework for Disaster Risk Reduction and Strengthening ni-Vanuatu Resilience - National Recovery and Economic Strengthening Program Plan (June 2015) and aimed to strengthen the resilience of schools and communities to future disasters and climate change risks. The Ministry of Finance and Economic Management (MFEM) was the executing agency and the Ministry of Education and Training (MOET) the implementing agency. The envisaged outcome was to resume critical education services with disaster-resilient infrastructure by achieving two outputs: (i) upgrading and/or rebuilding schools in Tafea Province, and (ii) strengthening the capacity of communities and MOET staff for disaster risk reduction and preparedness. The project was completed on 30 June 2020. (ADB Project Completion Report, June 2021).

Kramer Ausenco were engaged as the successful Design & Supervision Consultant by competitive tender through the Asian Development Bank, for the infrastructure works to four (4) junior secondary schools located in Tanna, Vanuatu. The schools included Imaki, Lowiepeng, Ienaula, and Kwataperen Junior Secondary Schools. The project incorporated climate resilience, disaster risk reduction, and build back better principles in addition to other improvements identified to both existing buildings as well as new classroom buildings. This project was part of the recovery response and required a holistic approach to the reconstruction of high schools in Tanna. The project developed and updated several standard designs for the Ministry of Education and Training. All new buildings were designed to also function as community shelters during disasters, with facilities such as emergency power back-up, communications systems, as well as rainwater storage tanks. All sites were developed to have safe teaching spaces with adequate water supply and context responsive WASH facilities which used nil water. The project maximized the local participation by using local labourers and local material suppliers and personnel.

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

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The project components included development of new building templates for the ministry of education with improved climate resilience characteristics, updated structural design and design elements to ensure the facilities were brought up and in line with the most current Building code of Vanuatu.

**A. General Management Tasks**

Management systems were set to ensure project implementation and progress was monitored on a weekly basis and reports were generated for the client's needs on a quarterly. Monitoring included work plans, staffing schedules, job descriptions, and, as necessary, budgets including equipment budgets, and detailed implementation schedule and development of a PPMS (Project Performance Monitoring System) which linked the Design monitoring framework with the Gender Action requirements of the project. Separate monitoring around social and environmental safeguards were undertaken on a weekly basis. The DSC assisted the implementation agencies PMU with technical matters and preparing reports as required by both the government and ADB.

**B. Technical Reviews**

The DSC role included the review of existing template designs for a range of facilities required in the implementation of this project ranging from classrooms, VIP toilets, dormitories, dining halls and Administration/ library buildings. Further review of climate risk studies were undertaken to ensure the buildings responded to build back better principals and increase the resilience of the community they served.

**C. Community Awareness and Participation**

The DSC engaged in several workshops with each of the communities to discuss issues ranging from the concept design, master planning for the school's capital works plan and maintenance with both men and women from each community. Gender awareness, food security, Disaster Risk Reduction and Management workshops were also delivered to the communities through the DSC's NGO partner.

**D. Social and Environmental Safeguards**

Throughout the project the DSC engaged an environmental and social safeguards team member who developed the IEE and EMP based on the approved designs, these designs were discussed with each of the identified sensitive receptors and mitigation measures around the key works affecting communities were developed. As noted within the monitoring section, Semi-Annual Safeguards reports and ongoing monitoring through the construction phase was in place for the duration of the project. The DSC also aided the contractor to develop their CEMP and develop awareness surround gender and cultural differences within the community which needed to be respected.

**E. Capacity Development**

The DSC provided training to PMU staff within areas such as Safeguards, project management and financial management. Internally, training was provided to local staff in the area of site supervision and safeguards monitoring which proved to be the success of the project. Finally, within each community training was provided in areas of building maintenance to both women and men.

**F. Disaster Risk Reduction & Community Awareness**

Whilst the scope of works was to design, procure and manage the construction of physical infrastructure for Junior Secondary Schools (JSS) in Tanna, the intention was also to build community awareness to improve response to risks associated with natural disasters. Lessons learned from previous cyclones indicated community education was necessary in relation to how to prepare to a potential natural disaster event and appropriately respond post event to prevent compounding disaster related effects to infrastructure assets as well as the health and well-being of local communities. The DSC utilized an integrated methodology whereby the delivery of the infrastructure complemented the Disaster Risk Reduction (DRR) strategies managed through the Team Leader and the sub-contracted NGO. In addition to delivering critical designed physical school infrastructure, education and engagement of local communities in issues was also undertaken related to the following:

1. Disaster risk reduction and disaster preparedness as well as disaster awareness.
  2. Social & health related risks such as HIV & STI diseases related to post-disaster reconstruction & rehabilitation work.
  3. Gender awareness particularly in relation to women participation and employment.
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