



FIJI



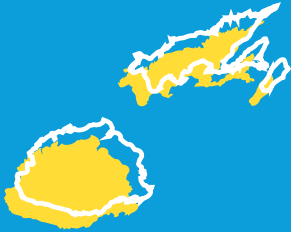
Co-funded by  
the European Union



# ACP-EU Development Minerals Programme



# AT A GLANCE



Located in the the South Pacific Ocean, Fiji is an archipelago composed of over 300 islands. Its geological diversity is the source of an array of development minerals, which are the lifeblood of the nation's infrastructure, construction, and economic development, as well as its cultural heritage and sustenance of its craftspeople.

Climate resilience and sustainability are a significant concern for Fiji. Its coastal geography is prone to extreme weather events. Fiji has limited capacity for extraction, therefore, well-informed extraction is all the more essential.

## Focus minerals of Fiji:



SALT



CLAY



SAND



GRAVEL

## Activities and achievements in Fiji:



Supported economic development and cultural heritage, practiced by artisanal pottery and salt-makers through:

- small grants
- training seminars
- construction of new facilities



Established the Certificate in Geology, Mining and Quarrying course at the Fiji National University.



Research about the role of development minerals in Fiji in disaster and climate resilience



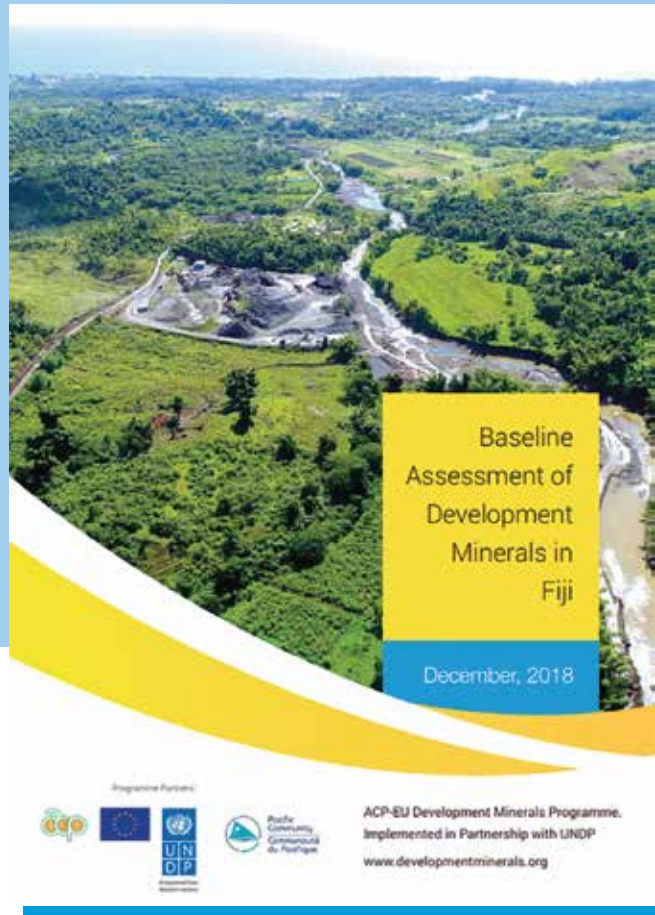
Strengthened official national statistics on the mining and quarrying sector's contribution to Fiji's GDP by:

- developing new methodology
- facilitating inter-agency collaboration

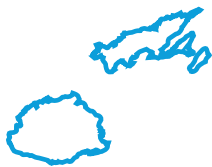


Helped create a digital library for the Mineral Resources Department improving accessibility to geological and land use information and statistics

# RESEARCH AND KNOWLEDGE PRODUCTS



## ‘Baseline Assessment of Development Minerals in Fiji’



provided the **first comprehensive knowledge base of Development Minerals in Fiji**. The report is a foundational document which has guided the interventions of the Programme in Fiji.

The assessment highlighted the significant role that **Development Minerals play an oversized role in Fiji’s domestic development**, specifically in the construction industry, agriculture and post-disaster reconstruction.

The study highlighted important **issues that adversely impact the current social, economic, and environmental conditions** of Fiji.



Uncontrolled siltation in rivers from gravel and sand mining activities in rivers in the central division. Left hand image from 2018 google Earth image of the Navua river mining site at Nakavu. Right hand image is uncontrolled siltation from mining activities in the Waisulubonu Creek, Wainadoi April 2021

## River Gravel and Sand Extraction Guidelines



improving **monitoring** and long term **sustainability** of the sector



preserving **environmental integrity** of gravel and sand resources

### A River Gravel and Sand Extraction Guideline 2021



Compiled by Dr Rajesh Taga\* and Robert Smith\*



Development Minerals Technical Working Committee  
1 Permanent Secretary Lands and Mineral Resources  
2 Robert Smith, South Gloucestershire Council

Prepared by  
Robert Smith

a reference document for gravel and sand extraction management to advance **education, regulation and environmental protection**

**complements** the regulatory controls contained in **existing legislation**

provides stakeholders with comprehensive **guidelines for gravel and sand extraction** which include:

information on **gravel and sand sources, processes, and the impacts of extraction** on riverine environments

the statutory and administrative **framework currently in place for extraction** in Fiji

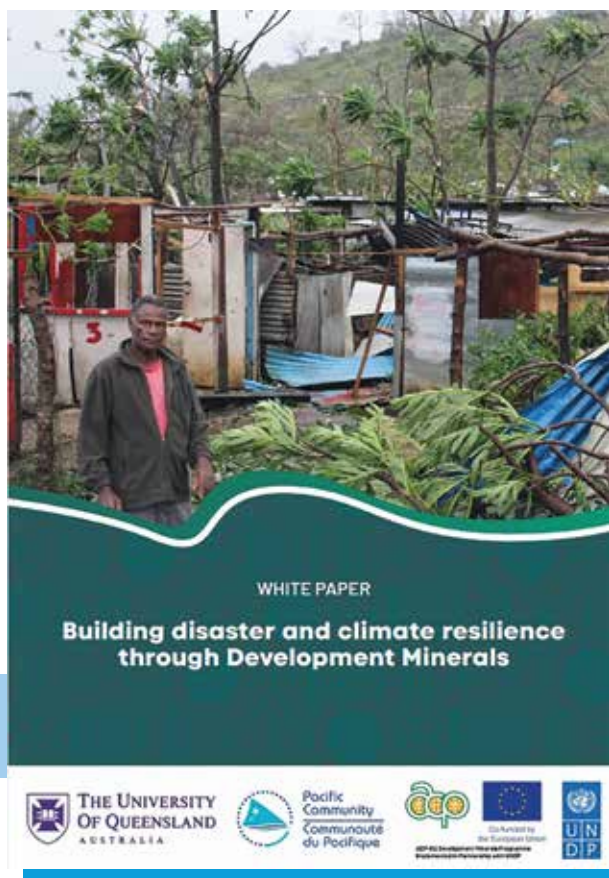
the principles and operating procedures that will be followed to **avoid, remedy or mitigate the adverse environmental effects**



Fiji coastline after a hurricane

## White Paper: Building disaster and climate resilience through Development Minerals

the role of Development Minerals in improving response to climate disaster



examines how **pre-disaster planning and support** can be enhanced by improving the availability of sustainable materials for reconstruction

introduces a **new framework** for understanding diverse climate change impacts in the mining sector

**analyses gaps in key frameworks** commonly used to assess and manage risks

identifies a range of **circular economy opportunities** which government and industry could implement to support **disaster resilience in the Pacific**

identifies ways forward to **strengthen disaster resilience and mineral security**



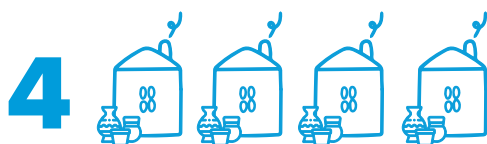
Traditional clay pottery makers were launched in Nakabuta

## CAPACITY BUILDING AND COMMUNITY SUPPORT



**Small grants** to artisanal groups of **salt makers** and **clay pottery makers** through the Fiji Arts Council

**10** villages in Nadroga and Rewa provinces in the main island of Viti Levu supported with small grants



new **clay cooking houses**



**salt cooking house**

constructed to help improve **incomes**,  
**recover from a disaster** and improve **hygiene**



598 people benefited, mostly  
**artisanal  
craftswomen**



Traditional clay pottery makers were launched in Nayawa village



**packaged salt in woven reeds**  
largely **bought by tourists** and **marketed to nearby hotels**

**salt cooking house rebuilt**  
in Fiji following the **tropical cyclones** and  
battery by **COVID-19** economic fallout



Launching of saltmaking house in Suva with Fiji Arts Council & Department of Heritage and Arts



Traditional clay pottery makers were launched in Nayawa village

improved social cohesion and a sense of purpose of community members



promoting traditional communal work,  
known as

**solesolevaki** in Fijian

## Discovering Fiji: The amazing women potters of Nasilai

JOHN MITCHELL | 10 October, 2021, 8:00 pm



Paulina shows her completed pot. Picture: JOHN KAMEA

...

Women made a range of ceramic pots called kuro ni Viti using a process called tulituli. Some served a decorative purpose. Others were for cooking and for storing water (saqa).

Each was uniquely fashioned and minutely detailed depending on the region in which they were made.

"A pot was a proud symbol of womanhood," said Veniana Maraia Paulina, one of Fiji's most respected potters and perhaps the only surviving student of a potter who lived in the 1800s.

The 70-year-old of Nasilai Village in Rewa is one of the few women who earns a living through pottery. She first learned the art from Aliti Adivukailagi, her 99-year-old grandmother

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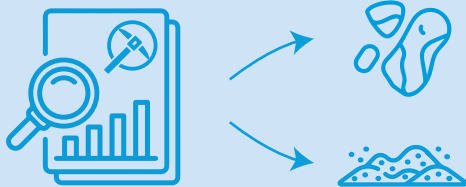
**The Fiji Times**

the Fiji Arts Council partnered with the Department of Heritage and Arts, and the Ministry of Commerce, Trade, Tourism and Transport, to **market and brand the Fiji White Goldbrand of sea salt**



the Fiji Arts Council **raised more funds** from the Ministry of Education, Heritage and Arts **for the artisanal groups**

## ENVIRONMENTAL AND SOCIAL SAFEGUARDS



### **assessed river gravel and sand extraction:**

their environmental operations impacts and informal or illegal operations

the assessment **informed revision of government Guidelines**, which will:



improve the **environmental management of quarrying**



improve **environmental impact assessment reports (EIAs)**



improve **monitoring of extraction**, promote sustainable exploitation



promote **coordination between regulatory bodies**



incentivize **compliant quarries**

# BUILDING SKILLS FOR THE FUTURE



partnered with the University of Queensland's Sustainable Minerals Institute, UNESCO, the Pacific Community (SPC), the Fiji Ministry of Lands and Mineral Resources, and Fiji National University to:

support the **Certificate course in Geology, Mining and Quarrying** at the Fiji National University

support establishment of the **Stones for Development course**, as well as **Blue Concrete Initiative**

## Stones for Development course:



**one-year course** for enhancing skills in mining and quarrying



recognizing mining and quarrying as major source of **rural employment**



teaches about the **social and environmental impacts of mining**



informs about the interplay between **climate change and mining**

initiate the **Stones for Development Work-Integrated Learning Programme**

at the University of Queensland



Stonest for Development 2023 Certificate Ceremony.



Stone for Development 2023 cohort

# DEVELOPMENT MINERALS AND CLIMATE CHANGE



cement is  
**the most widely used  
building material**  
in the world

it is also a major contributor to global  
**climate change**, accounting for around

# 8%

of all anthropogenic **CO<sub>2</sub> emissions**

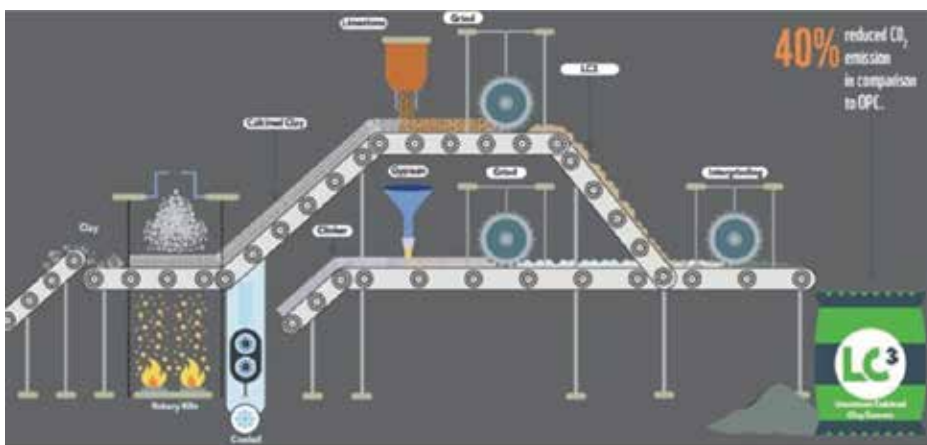


Figure showing LC3 production chain

LC3 is a family of  
composite cements,  
whose technology  
promises a sustainable  
growth by **reducing up to  
40% CO<sub>2</sub> emission**  
compared to Ordinary  
Portland cement



In partnership with the Pacific Community (SPC), the University of Queensland's Sustainable Minerals Institute, Indian Institute of Technology in Delhi and the Society for Technology and Action for Rural Advancement (TARA):



scoping the feasibility of **low-carbon Limestone  
Calcined Clay Cement** (LC3) in the Pacific



Project partners launching Blue Concrete at COP27 climate summit with Fiji's Ambassador and Permanent Representative to the UN

The Programme supported Fiji Government to launch the **Blue Concrete Initiative** at COP 27 climate summit, in partnership with SPC, the University of Queensland's Sustainable Minerals Institute, Indian Institute of Technology in Delhi and the Society for Technology and Action for Rural Advancement (TARA).

## Blue Concrete Initiative:



lays the foundations for the introduction of **low carbon cement** to Fiji



ensures **sustainably sourced** key concrete inputs



improves **resilience of local supply chains** of concrete



prioritises **climate action**



supports the establishment of **innovative domestic value chains** that utilise our own resources and generate employment



supported the Ministry of Lands and Mineral Resources to undertake 'Construction Materials Damage and Capacity Assessments' to **assist in the recovery following Tropical Cyclone Yasa**



Gravel stockpiled on a river bank in Fiji, exposed to flood risk

made an agreement with the Pacific Community (SPC) to **provide technical support** to develop the Development Minerals Sector Development Strategy on Business Acceleration and Development Minerals Policy

partnered with the SPC to undertake **research** in the areas of **development minerals** and **climate change**



(L-R) UNDP Pacific Office in Fiji Deputy Resident Representative a.i., Kevin Petrini and SPC Deputy Director General, Dr. Audrey Aumua with the signed MoU

## PARTNERSHIPS



NA MAHIMA (WHITE GOLD)  
NI LOMAWAL, SIGATOKA



# IN THE MEDIA

## The Fiji Times

Fiji times online news portal



@Fiji Arts Council Facebook page



MINERAL RESOURCES DEPARTMENT



@Ministry of Lands and Mineral Resources  
Facebook Page



@Fiji Arts Council Facebook page

### Traditional salt and pottery makers receive timely support to boost production and income

By Naveel Krishant

Tuesday 15/12/2020



Resident Representative of the UNDP Pacific Office in Fiji Levan Bouadze. [Image: UNDP/Facebook]

Traditional salt and pottery makers operating Micro, Small and Medium Enterprises have benefitted from a grant that will ensure the continuation of their businesses during this COVID-19 pandemic period.

They have received this support through grant funding to the Fiji Arts Council under the Phase 2 of the Organisation of African Caribbean Pacific - European Union (OACPS-EU) Development Minerals Programme in Fiji, being implemented by the United Nations Development Programme.

The recipients are the salt makers of the village of Lomawai in Nadroga, and traditional clay potters of the villages of Nakabuta, Lawai, Nayawa in Nadroga, and Nasilai Village in Rewa.

The support will allow these entrepreneurs to fund proper infrastructure, human resources, transportation of raw materials, boiling equipment, quality packaging, labelling and marketing.

In acknowledging the partnership with the Fiji Arts Council, the Resident Representative of the UNDP Pacific Office in Fiji Levan Bouadze, said the support is part of UNDP's broader efforts to address the business continuity and health and safety needs of entrepreneurs in the development minerals sector following the economically destructive impact of COVID-19 on small and medium enterprises in Fiji.

fijivillage



Mr Raymond Mohammed (Acting Director- Mineral Resources Department) and Chairperson, Country Working Group – Fiji. Mr Mohammed is wearing a lanyard made from clay beads by one of the pottery villages which the Programme supported

# TECHNICAL WORKING COMMITTEE

## Composition

7 female

12 male

The Technical Working Committee of the Programme in Fiji provides technical guidance and direction for the implementation of the Programme. It consists of 19 members, 7 of them female, and is chaired by the Ministry of Lands and Mineral Resources.

## Issues addressed

technical advice on the  
**River Gravel and Sand  
Management Guidelines**

review and advice on  
**capacity building opportunities**  
with the University of Queensland

review and advice on the  
**Certificate IV training in Geology, Mining and Quarrying**

## Follow us on social media



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## Contact us



[development.minerals@undp.org](mailto:development.minerals@undp.org)



<http://www.developmentminerals.org>



The ACP-EU Development Minerals Programme  
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### Abbreviations and acronyms

ASM – Artisanal and Small-scale Miner

ASME – Artisanal and Small-scale Mining and Mineral Processing Enterprise

CSO – Civil Society Organisation

PPE – personal protective equipment

### Cover page image

Traditional clay pottery makers launched in Nakabuta

### About the Programme

The ACP-EU Development Minerals Programme is an initiative of the organisation of African, Caribbean and Pacific States (OACPS), coordinated by the Secretariat of the OACPS, financed by the European Commission and the United Nations Development Programme (UNDP) and implemented by the UNDP.

Last updated: March 2024