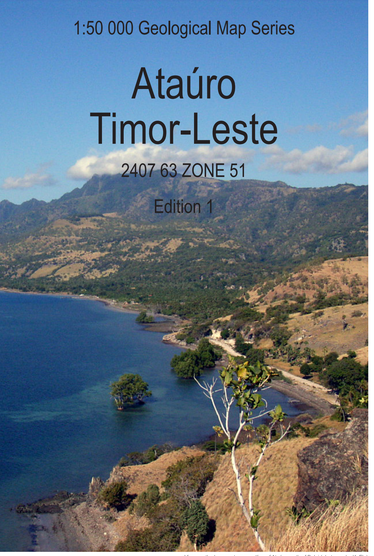
1:50 000 Geological Map Series

Ataúro
Timor-Leste

2407 63 ZONE 51

Edition 1



View south along eastern coastline of Ataúro north of Beloi (photography K. Ely)

THE UNIVERSITY OF MELBOURNE

DATUM NOTES

ELLIPSOID.....WORLD GEODETIC SYSTEM 1984
GRID.....5000 METRE UTM ZONE 51
PROJECTION.....TRANSVERSE MERCATOR
VERTICAL DATUM.....MEAN SEA LEVEL
HORIZONTAL DATUM.....WORLD GEODETIC SYSTEM 1984

GN

2012 G-M ANGLE 2.05°E (changing by 0.033°W/year)

TO CONVERT A MAGNETIC AZIMUTH TO A GRID AZIMUTH SUBTRACT G-M ANGLE

TO CONVERT A MAGNETIC AZIMUTH TO A GRID AZIMUTH ADD G-M ANGLE

MAP LOCATION

INDEX TO ADJOINING MAPS

LIQUICA 2407–24	DILI 2407–33	LACLO 2407–34
ATSABE 2407–22	MAUBISSI 2407–31	SOIBADA 2407–32

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GEOLOGICAL MAPPING (2005)

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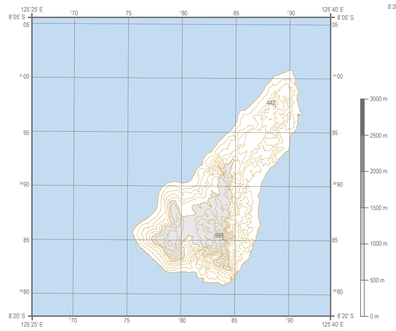
REFERENCE MATERIAL

Abbott, M.J., and Chamalaun, F.H., 1981. Geochronology of some Banda Arc volcanics. In: Wirosuyono, S. (Ed.), The Geology and Tectonics of Eastern Indonesia. Geological Research and Development Centre, Special Publication 2, pp. 253–271.

Chappell, J. and Veeh, H.H., 1978. Late Quaternary tectonic movements and sea-level changes at Timor and Atauro Island. Geological Society of America Bulletin, 89, 356–368.

Ely, K.S., Sandiford, M., Hawke, M.L., Phillips, D., Quigley, M. and Reis, J.E.D. 2011. Evolution of Ataúro Island: Temporal constraints on subduction processes beneath the Wetar zone, Banda Arc. Journal of Asian Earth Sciences, 41, 477–493.

ELEVATION GUIDE

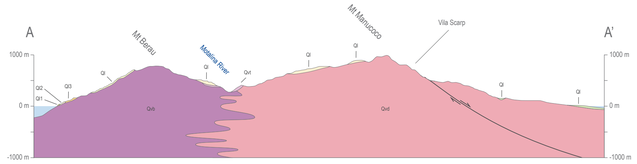


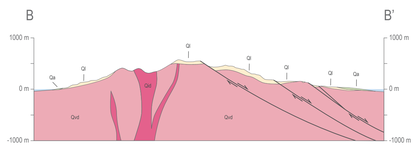
RELIABILITY DIAGRAM

SCALE 1:50 000

0 1 2 3 4 5 10 15

KILOMETRES





HOLOCENE ALLUVIUM
PLEISTOCENE LIMESTONE
PLIOCENE INTRUSIVE ROCKS
PLIOCENE EXTRUSIVE ROCKS

SYMBOL LEGEND

TOPOGRAPHY

Spot elevation.....

POPULATED PLACES

Village.....

DRAINAGE

Watercourse: perennial.....
intermittent.....

Hot spring.....

GEOLOGY

Fault, normal, hanging wall indicated.....
Fault, unknown.....

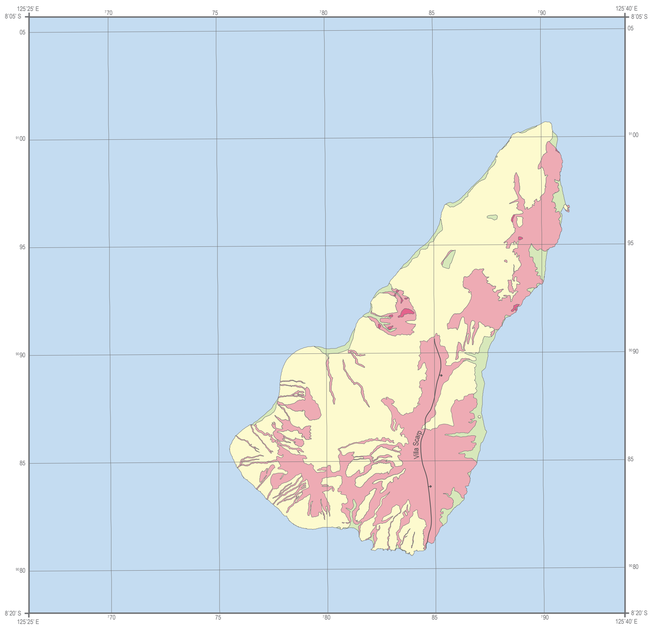
GEOCHRONOLOGY

Isotopic age in millions of years.....
range of inherited ages — age of intrusion/extrusion
method — age of metamorphism

STRATIGRAPHIC LEGEND

		SEDIMENTARY ROCKS	VOCANIC AND INTRUSIVE ROCKS
QUATERNARY	HOLOCENE	Flood plan alluvium: sand, gravel and silt — Qa	
	0.01 Ma		
	PLEISTOCENE	~ 100 ka → Qf1; ~ 125 ka → Qf2, Qf3, Qf4, Qf5, Qf6, Qf7 Pale grey massive limestone, carbonate cemented beach conglomerate, bioturbated and fossiliferous carbonaceous sand and mud. Terrace levels (Qf1-Qf7) represent sea level highstands. Undifferentiated limestone, conglomerate, sand and mud. Terrace level unassigned. — Qt	
	2.6 Ma		
NEOGENE	PLIOCENE		Mt Petenua rhyodacite Pale grey commonly massive subvolcanic rhyodacite with hb and plag phenocrysts (1-5 mm) in a fine-grained to glassy matrix. — Qlr Adara dacite Commonly massive subvolcanic dacite with hb and plag phenocrysts (1-5 mm) in a fine-grained matrix. — Qld 3.3–3.1 Ma → Berau dacitic tuff and volcanoclastic sediment Stratified polymict dacite and scoriaceous breccia. Polymict layers consist of angular to sub-angular dacite clasts (2–500 mm) interbedded with scoria and ash. Sedimentary structures common. — Qvt 3.3 Ma → Mt Tutonairana basaltic andesite Blue–black lava and breccia with cpx, opx and plag phenocrysts (> 20 mm) in a microcrystaline matrix. — Qvb 3.5 Ma → Mt. Manucoco dacite Lava and breccia. Unit consists of monomict commonly vesicular clasts (2–500 mm) with plag and occasional cpx phenocrysts in a fine-grained to glassy matrix. — Qvd

MAJOR ROCK UNITS AND STRUCTURAL FEATURES



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