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without borders  
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# Engineering a Better World

*Insight into Humanitarian Engineering Projects*

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*engineering a better world*

- Think local ...
  - Water
  - Transport Infrastructure
    - Public transport
    - Roads
    - Ports



- Think global ...
  - Climate Change
  - Sustainability
  - Disadvantaged communities...
    - Health
    - Water and Sanitation
    - Education
    - Infrastructure





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# THE IMPERATIVE



Over 1 billion people have inadequate access to clean water

Over 2 billion people have inadequate access to sanitation

3 billion people worldwide live on less than two US dollars a day

More than 20,000 people die each day from extreme poverty





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# It is about sustainable ACCESS





Engineers Without Borders Australia works to improve the quality of life of disadvantaged communities, both within Australia and overseas, through sustainable, appropriate engineering projects.

EWB's vision is of a world where every individual and community has adequate access to the resources, knowledge and technology necessary to meet their self identified human needs.





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# EAST TIMOR - WATER





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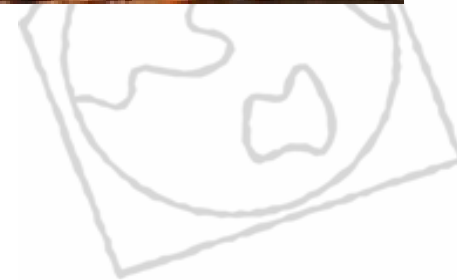
# AUSTRALIA – INFRASTRUCTURE



**Aboriginal  
Co-ordinating Council**

*"To Enhance the Quality of Life for Aboriginal  
DOGIT Community Residents"*

[www.accq.org.au](http://www.accq.org.au)





- The Maldives – Australian Tsunami Relief Team

The Maldives Government, Ministry for Education, requested assistance in the form of a team of structural engineers, to conduct assessments of the school buildings on islands identified as being severely effected by the Tsunami.

Initially there were 79 schools on 75 islands to inspect, on arrival the number changed to 30, and on completion we had inspected 35 schools.



- We got a call and we reacted within about three days as a team to go to the Maldives. The following picture was taken three weeks after the tsunami. We were asked as a team of four structural engineers to assess the structural stability of school buildings so that the students could go back to school.





# The Maldives

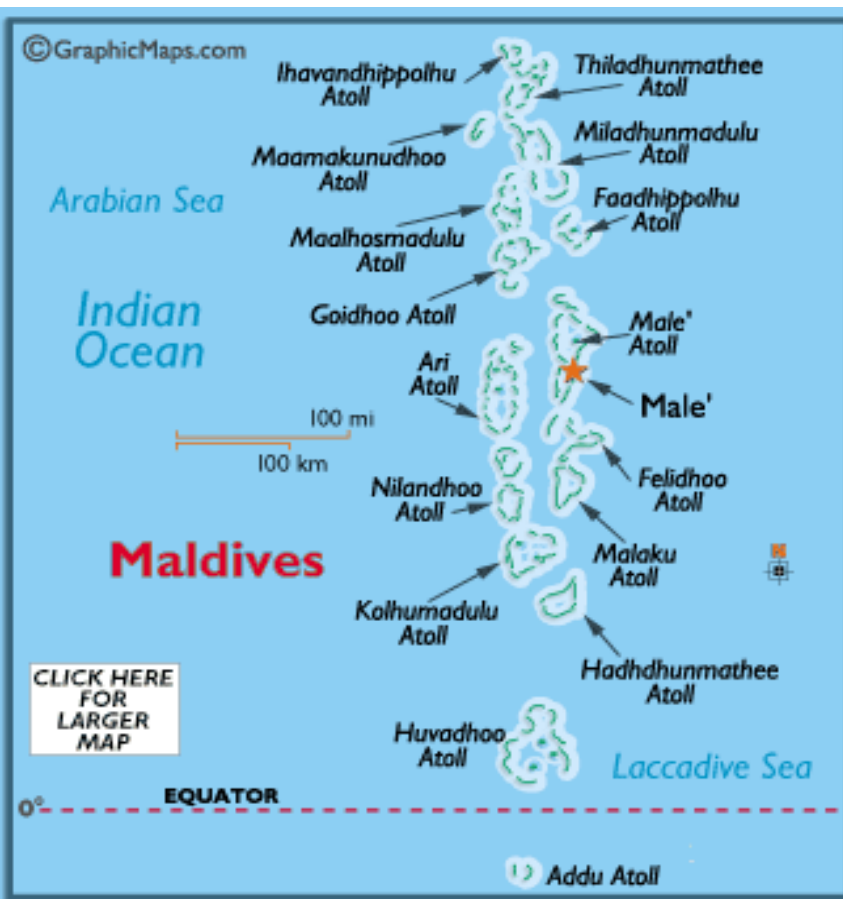
- Population: 290,000
- Land area : 300 sq km
- Number of inhabited islands:199
- Main industries – tourism, fisheries

We visited 35 schools on 35 islands, in 9 different atolls





# The Maldives



- The impact of the tsunami is shown in the next slides. This is a boat that had hit one of the buildings. Our job was to assess the buildings, identify what repairs were required or whether they needed to get rid of the buildings before the kids could go to school
- In terms of the work we were doing, some of the slides show one of the most devastated schools we turned up to. Each time we did this, you took a deep breath and realised you could use the studies you had done and the work that you have done since you finished university to be able to help the community





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# The Impact...





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# The Work

School 02, Dhaalu Gemendhoo





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# The People





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# The Reward!

