

## Media Release

**For immediate release: 7<sup>th</sup> February 2007**

### Climate change heads five threats to the Great Barrier Reef

Climate change presents the most significant and immediate threat to the Great Barrier Reef, according to the organisation charged with fundraising for targeted scientific research aimed at preserving it.

The Great Barrier Reef Foundation is Australia's pre-eminent independent fundraiser for coral reef research. Established in 1999, its mission is to protect and preserve the Great Barrier Reef.

The Foundation, advised by a committee of eminent marine scientists, who have studied the Reef for decades, has identified five high-level risks to its future. These include:

- Climate change
- Water quality
- Over fishing
- Coastal development and
- Shipping

"The Big Five present significant threats to the beauty, amenity, value and future of the Reef," said Judy Stewart, Great Barrier Reef Foundation Chief Executive.

"All five issues are having a noticeable and damaging effect on the Great Barrier Reef. We need to better understand the impact of these threats, singularly and cumulatively to ensure the Reef is preserved," she said.

Mrs Stewart explained the Big Five threats as:

**Climate change** – increasing ocean temperatures, the acidification of ocean waters and damage caused by cyclones and storm surges.

**Water quality** – poor water quality caused by run-off from land-based agriculture, grazing and development is jeopardising natural resilience.

**Over fishing** – unsustainable fishing practices are removing key species of fish that play a vital role in the ecosystem's health.

**Coastal development** – widespread population growth and related infrastructure are together placing unprecedented pressure on the Reef.

**Shipping** - the impact of waste products and ballast water treatment emanating from the transit of large ships in the inner route of the Reef.

Of the five, the Foundation and Reef research and management agencies agree that climate change presents the most significant threat today.

"Coral bleaching is the most visible and prevalent impact of climate change on the Great Barrier Reef and one which is occupying the minds of both researchers and managers of the Reef as well as the general public," Mrs Stewart said.

"El Nino events are occurring more frequently creating the clear, hot and still summer conditions that boost temperatures of surface waters by several degrees. There is a direct link between high water temperature and bleaching events."



GREAT BARRIER REEF  
FOUNDATION

*Working to protect and preserve the Great Barrier Reef*

Coral bleaching occurs when corals become stressed by high water temperatures and the zooxanthellae that live with coral – giving it life and colour – are expelled, leaving the coral white in appearance.

“Bleached corals can survive for up to a month, but if Reef waters do not cool, these stressed corals will die,” Mrs Stewart said. Bleached reefs may take 15 to 20 years to recover.

“Continuous scientific research into the impacts of climate change, and the interplay of all the ‘Big Five’ factors - and how they inform the management of the Reef – is essential and goes to the heart of the Foundation’s activities,” Mrs Stewart added.

**ENDS**

**For further information:**

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