

Reducing consumption key to a sustainable future

November 11 2008



Reducing consumption is essential for environmental and economic sustainability. Image: CSIRO

(PhysOrg.com) -- Based on then ground-breaking modelling, the forecasts of global ecological and economic collapse by mid-century contained in the controversial 1972 book; The Limits to Growth, are still 'on-track' according to new CSIRO research.

The Limits to Growth' modelled scenarios for the future global economy and environment and recommended far reaching changes to the way we live to avoid disaster.

In a paper published in the current edition of the international journal; Global Environmental Change, CSIRO physicist Dr Graham Turner



compares forecasts from the book with global data from the past 30 years.

"The real-world data basically supports The Limits to Growth model," he says. "It shows that for the first 30 years of the model, the world has been tracking along the unsustainable trajectory of the book's business-as-usual scenario."

"The original modelling predicts that if we continue down that track and do not substantially reduce our consumption and increase technological progress, the global economy will collapse by the middle of this century.

"The contemporary issues of peak oil, climate change, and food and water security, resonate strongly with the overshoot and collapse displayed in the business-as-usual scenario of The Limits to Growth."

This is the first time anyone has comprehensively tested the predictions of the first, and still one of the most comprehensive, global models linking the world economy to the environment.

"We've had the rare opportunity to evaluate the output of a global model against observed and independent data," says Dr Turner.

To date, the recommendations of The Limits to Growth, which included fundamental changes of policy and behaviour for sustainability, have not been implemented.

The Limits to Growth documented the results of a Massachusetts Institute of Technology (MIT) study carried out by Meadows et al, who were commissioned by The Club of Rome to analyse the 'world problematique' using a computer model developed at MIT called World3.



The Limits to Growth became the best selling environmental book in history, selling more than 30 million copies in 30 languages.

"In the years since 1972, The Limits to Growth has provoked much criticism but our research indicates that the main claims against the modelling are false," Dr Turner says.

CSIRO is investigating how Australia can address the challenges of economic, environmental and social sustainability facing communities across Australia.

Citation: Graham M. Turner. A Comparison of The Limits to Growth with 30 years of reality. Global Environmental Change 18 (2008) 397-411. Accepted 13 May 2008, CSIRO Sustainable Ecosystems.

Provided by CSIRO

Citation: Reducing consumption key to a sustainable future (2008, November 11) retrieved 26 April 2024 from https://phys.org/news/2008-11-consumption-key-sustainable-future.html

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