

Dr. Susan Kinnear

Senior Research Officer, Sustainable Regional Development Programme, Centre for Environmental Management, CQUniversity

BIOGRAPHY

Dr Susan Kinnear is currently a senior research officer at CQUniversity Australia, where she leads a programme in sustainable regional development. Prior to this, Susan gained several years' experience working on diverse and multidisciplinary projects for the CQU Institute for Sustainable Regional Development, including those on weeds, regional growth in the Bowen Basin and climate change. She has a background in the experimental environmental sciences and has undertaken a range of undergraduate and postgraduate course writing, research student supervision and tertiary teaching. In 2007, Susan was the Queensland Young Achiever of the Year (Environment). She is currently interested in regional issues of resource use (water, energy and waste) and environmental management in the local central Queensland region.

ABSTRACT 1

Beyond Carbon: a case study of regional clustering and innovation in cleantech

The environmental challenges confronting regional Australia result from drivers such as climate change, population growth, natural resource management and land use conflicts, liveability concerns and regionalization agendas. There is a need to explore ventures that simultaneously address these sometimes contradictory pressures if regional areas are to flourish and effectively contribute to national targets in social, environmental and economic areas. 'Cleantech' refers to a range of technologies and processes that focus on improved efficiency, reduced environmental impacts and better profitability; and Cleantech is emerging as an innovative way to tackle many regional sustainability challenges. Central Queensland (CQ) is well-credentialed to be a case study region for the development of Cleantech: it has high Cleantech demand; a suite of useful natural assets; advantageous infrastructure and waste products; existing professional skill and trade sets in relevant industries; a diverse economy and economic incentives to operate in Cleantech; an engaged regional University; supportive local Government and a core of businesses already dealing in Cleantech. Most importantly, there is substantive human capital in this area, with significant regional interest in Cleantech. This paper explores how clustering with SMEs and other stakeholders to establish a Cleantech CQ hub could drive regional innovation and offer a solution to a range of regional environmental pressures. It describes how the region can move 'Beyond Carbon' through a regional implementation plan to improve regional competitiveness whilst maximizing CQ's contribution to national social, economic and environmental targets.

ABSTRACT 2

Climate Change, Resource Boom and Coastal Housing in Regional Queensland: an overview

Climate change is an important challenge for future housing design and location, as well as for the renovation or relocation of existing homes. Climate change events such as sea level rise, sudden heavy rainfall and cyclones and their resulting inundation in coastal areas have been affecting the eastern parts of Queensland, Australia over the last four decades. This trend is concerning given that urban growth pressures and 'sea-change' lifestyles have resulted in an increasingly more concentrated human population along the Queensland coastline. Furthermore, in its 'Regional Climate Projections', the IPCC 2007 has captured the possible effects of climate change in Central Queensland region: this includes the anticipation that future sea-level rise will directly impact on the coastal settlements located in central Queensland.

Zilzie is one of the newly developed coastal settlements within the central Queensland region, within the Rockhampton Regional Council boundaries. This baseline study examines the possible climate change impacts on Zilzie with respect to current location of residential homes, and housing design, and possible regional housing market dynamics. The work lays a foundation for managing the nexus between coastal housing, climate change, and population growth in the central Queensland region. Future work in this area is likely to include detailed sea level rise and storm surge modelling and inundation mapping at local level supported by community perception towards future housing design and location. Such work will contribute to the development of a long-term strategic plan for the coastal housing in regional Queensland.