

Sustainable Regional Development and Innovation

Karel Grezl

BMet (Hons 1), ME, LLB

Submitted for the degree of Doctor of Philosophy

March 2007

*I hereby certify that the work embodied in this thesis is the result of original
research and has not been submitted for a higher degree to any other
University or Institution.*

(Signed):

Table of Contents	Page
Abstract	4
1.0 Introduction	6
2.0 Literature Reviews	7
2.1 Sustainable regional development	7
2.2 Sustainability and sustainable development	16
2.3 Regions and regional development	29
2.4 Innovation	51
2.5 Literature reviews reveal conceptual inadequacies	62
2.6 Rationale for use and selection of regional case studies	63
3.0 Regional Case Studies	65
3.1 Italy's regions	66
3.2 The UK's regions	90
3.3 The Nelson Region of New Zealand	122
3.4 The Hunter Region of New South Wales, Australia	149
3.5 Synthesis	169
4.0 Discussion	175
4.1 Proving the thesis - <i>not possible with current understanding</i>	175
4.1.1 <u>Breaking through</u> : <i>normative treatment of sustainability plus The Innovation Opportunity</i>	176
4.1.1.1 Sustainable regional development explored	177
4.1.1.1.1 The chasm between ideals and metrics	178
4.1.1.1.2 The dilemma of regional boundaries	188
4.1.1.1.3 Informal economies usually ignored	193
4.1.1.1.4 Sustainable regional development explained	196
4.1.1.1.5 Rationale for inquiring further into innovation	197
4.1.1.2 Innovation revisited	198
4.1.1.2.1 Creativity acknowledged but necessarily ignored	198
4.1.1.2.2 Innovation mechanism mostly unknown	198
4.1.1.2.3 Philosophical illumination: genesis of <i>The Innovation Opportunity</i>	199
4.1.1.2.4 Rationale for field research interviews	221
4.1.1.3 Field Research Interviews	222
4.1.1.3.1 Research Methodology and Protocols	222
4.1.1.3.2 Research Findings	225
4.1.1.3.3 Implications for this research program	236
4.1.2 Thesis proven	238
4.2 Opportunities for further research	239
4.2.1 Validation of <i>The Innovation Opportunity</i>	240
4.2.2 Improved communication of normative goals	240
4.2.3 Informal economies and sustainable regional development	241
4.2.4 Within the Hunter Region, arising from the research interviews	241
5.0 Conclusions	242
Acknowledgements	243
Bibliography	244
Appendices	257
Appendix A: Field Research Interviews - Data	258

Abstract

Innovation drives sustainable regional development is the thesis that was tested in this inquiry, using literature reviews, case studies and field research interviews. Case study regions include all of the regions of Italy and the UK, the Nelson Region of New Zealand and the Hunter Region of NSW, Australia. Interviews were only conducted in the Hunter Region.

The literature reviews revealed deep conceptual inadequacies. Sustainable regional development has leapfrogged a settled understanding of sustainability/sustainable development and regions/regional development. The former is a complex and incoherent normative field, yet managed through metric paradigms. The latter reflects politico-economic boundaries that may neither subsist nor reflect social and natural environmental functioning.

The case study regions, particularly those of the UK, suggest innovation offers a possible solution to the conceptual inadequacies. They demonstrate how novel approaches to sustainability/sustainable development and regions/regional development can be progressed, despite incomplete or unsettled understanding. Sustainable regional development is best viewed as measurable human actions across environmental, social and economic fronts over time (sustainable development), directed at a normative goal (sustainability), in some spatial context (region). Sustainable regional development is manageable, despite the conceptual difficulties involved, by working with what one has (requiring capability development) and identifying what works (the basis of “learning regions”). The Italian case study is used as a partial illustration.

But the highly particularised literature on innovation did not illuminate the pathway connecting know-how in sustainable regional development to its successful diffusion. That pathway, dubbed *The Innovation Opportunity*, was, however, illuminated by the work of a philosopher, Ernst Bloch. Two additional thresholds beyond that of possibility (know-how) were revealed: progress (needing leadership) and probability (needing communication). *The Innovation Opportunity*, although developed specifically for sustainable regional development, is proposed as a generic innovation model.

To test the relevance of this conclusion in a region, face-to-face field research interviews of Hunter Region leaders were conducted on regional challenges (candidates for innovation) and the roles of universities (innovation seedbeds) in addressing

sustainable regional development. The upshot was a variety of useful insights supportive of the overall thesis and the conclusion that this regional university may require better leadership and communication to relate more meaningfully to its region as to innovation for sustainable regional development.

The thesis is proven, if both innovation and sustainability have been correctly understood.

Opportunities for further research include validation of *The Innovation Opportunity*, improved communication of normative goals (e.g. sustainability), and understanding informal economies as indivisible components of sustainable regional development. Additional specific research opportunities in the Hunter Region were also identified.

1.0 Introduction

“If men could learn from history, what lessons it might teach us!” lamented Samuel Coleridge. “But passion and party blind our eyes, and the light which experience gives us is a lantern on the stern which shines only on the waves behind us” (Tuchman 1985:383)

This PhD research program reflects a keenly-held desire. It is to better understand some of the limits to human initiative as a spur to continued development at regional levels. If human initiative of its own were enough, there would be no need for this inquiry. Solutions to regional development challenges might be expected just from a disciplined application of accumulated knowledge, skills and experience. But such approaches have never been enough of themselves. New approaches are often also eventually required. Of particular interest is the genesis of such new approaches, which is at the core of an understanding of innovation – a necessarily substantial component of this inquiry.

The idea of continued development at regional levels begets inquiry. In an age of global interconnectedness and interdependence, few actions are without consequences, albeit sometimes slight. A short-term focus on economic activity alone may be at the longer-term expense of environments and communities – both proximate and remote. That longer-term perspective is at the root of concerns as to sustainability. This is an age in which human force can be magnified and projected internationally with relative ease. But the potential for individual regions and their communities to be left behind economically and socially, and despoiled environmentally, is both real and serious. Neither outcome is necessarily likely to be either invisible or inconsequential.

The approach taken in this inquiry is based on a model framework. This allows for the thesis (in this case, that *innovation drives sustainable regional development*) to be put and tested through a combination of literature reviews, case studies, original theorising and field research. In addition to allowing the thesis to be tested, this process should add to the body of knowledge and also throw up issues for further inquiry. But, hopefully, that keenly-held desire will be at least partially satisfied.