Bennett, Jeff and Birol, Ekin (eds.), *Choice Experiments in Developing Countries: Implementation, Challenges and Policy Implications*, Cheltenham: Edward Elgar, 2010, pp. xxv + 321. ISBN 978-1-84844-003-6, £79.95p.

This book is the first documentation of choice experiment (CE) applications in developing countries, and is a timely resource in promoting non-market valuation of pertinent issues in these contexts. The book is well presented with 17 chapters organised into five broad sections. A detailed discussion (on pp. 5–7) of some strengths of the CE over conventional contingent valuation method and revealed preference studies provides a worthwhile introduction to the reader.

There are however, some oddities and inconsistencies. For instance, in chapter 2 (A choice experiment of human–elephant conflict resolution in Sri Lanka) Brouwer *et al.* appear to place an undue emphasis on the welfare of elephants over humans (p. 17). A more considered approach would accord top priority to the *value* of human life before citing the benefits of conserving elephants, or mentioning the conflicts and potential threat of wildlife extinction associated with human settlement. In the CE design stage of the same chapter, there is confusion on whether the number of attributes used was four (p. 20) or the five reported in the previous page. Another non-trivial inconsistency in this chapter is the inclusion of consumer surplus computational details in the results section, notwithstanding that these are not alluded to anywhere in the methodology.

In chapter 3 (Using choice experiments to estimate wetland values in Viet Nam: Implementation and practical issues), Do and Bennett provide a useful account of the CE design process and survey. In chapter five (Researcher-selected versus respondent-selected attributes: Improved coastal water quality in Tobago, by Beharry-Borg and Scarpa), which concludes the first section of the book, it is important to include a cautionary remark that in many CE applications the researcher has to make a choice on what (*if any*) methodological issue to address. Otherwise, a study might fail to add value by spreading too thin in attempting to contribute novelty in all aspects of the broad and complex CE dimensions.

The book could have been organised in a way that enhances comparative readability of experiences from different geographical areas of the developing world. In this regard, the chapter composition in section 2 could have been more issue-oriented rather than merely pooling together studies from a single country. In chapter 6 (Estimating non-market environmental benefits of land use change in China), Wang *et al.* mention that 'dominant and implausible alternatives were removed from the design … orthogonality was preserved' (p. 91). I was however, curious to understand how this was achieved, especially in such a situation where the full design was not utilised in the final survey. For comparisons between multiple groups, standard statistical tests are necessary to support significance of differences reported, for example, in table 6.2 (p. 92). Nonetheless, the last chapter in section 2 (chapter 7 on 'Assessing the sustainability of the Sloping Land Conversion Programme: A choice experiment approach' – Grosjean *et al.*) provides an interesting insight through a CE analysis of likely policy impacts (from respondents' perspectives) of changes in programme financing. This is a useful addition to the knowledge toolkit as studies seldom incorporate future scenario evaluation.

In section 3, the estimation of non-use values of ecosystems in Pakistan by Dehlavi *et al.* (chapter 8) demonstrates the relevance of CE as a suitable analytical tool

for evidence-based resource conservation. However, the use of a one-off payment system instead of installments merely follows past practices that may be limited in scope (p. 133). It would have been more exciting to push the knowledge frontiers beyond the horizon through a flexible and complementary use of both the one-off and installment payments. This would also help to assess (indirectly) the effectiveness of other programmes that are currently based on one-off payments. Considerable progress has been made in developing both the theory and state-of-the-art CE design procedures in the last decade. It is therefore unconvincing for the authors of this chapter to feign ignorance by restricting the reader to a comparison of only orthogonal and mechanical designs (p. 135). Moreover, there are several compelling reasons for choosing efficient rather than orthogonal designs, or for using both approaches in a balanced manner (see, e.g. Huber and Zwerina, 1996; Bliemer and Rose, 2010). The lengthy introduction and subsequent general description of forest issues by Villalobos and Huenchuleo in chapter 9 (pp. 151–153) could have been coherently summarised to focus on specific issues relevant to CE application in forest resource valuation.

There is overuse of the conditional logit (CL) model in the book (e.g. in chapter 9 mentioned earlier and chapter 12 by Ratanak and Yabe) without any attempt to justify its preference over more robust models such as the random parameter logit (RPL) and latent class model (LCM). Even if data limitations do not permit a more rigorous econometric estimation, the authors should admit and discuss the restrictiveness of CL.

In spite of these shortcomings, the analytical strength of this book is grounded in section 5. Besides valuing farmer preferences for various attributes of *Bt* maize, chapter 13 (Yorobe *et al.*) provides innovative insight into the dynamics of farmers' preferred mode of payment (cash or credit), which will be useful as a guide to planning of *Bt* maize technology development and commercialization. Chapter 14 (on preferences for cattle traits in Kenya – Ruto and Scarpa) offers the reader a sound analytical insight into CE through a meticulous application of the CL, RPL and LCM approaches. Indeed, future research could improve the statistical appeal and relevance of CE results in policy-making by following such a comprehensive analysis. Another innovative application of the CE method is provided in chapter 16 (Kikulwe *et al.*), evaluating preferences for a relatively new technology (genetically modified (GM) banana in Uganda). The GM technology could potentially contribute enormously towards addressing food insecurity and rural poverty challenges that are endemic, not only in Uganda but in many other developing countries. Furthermore, the use of variance inflation factors in this chapter to test for multicollinearity puts the variable selection and modelling here on a firm statistical ground. Chapter 15 (Roy *et al.* on 'Developing country consumers' demand for food safety and quality…'), however, suffers some analytical problems. Considering differences in scale parameters for models estimated with different datasets, and following the statistical insignificance of the price attribute (tables 15.4 and 15.5), the comparison of preferences between respondents in Andheri and Charkop regions is rendered invalid because willingness to pay measures were unestimable in this case.

In conclusion, this is a timely resource book for CE application. I would certainly recommend it as a valuable handbook for postgraduate teaching and policy research on the CE design and implementation. Besides the practical guidelines suggested in chapter 17 (Birol and Bennett), CE practitioners should be involved in policy advocacy to encourage the integration of findings from such studies in the

development programmes of resource-constrained countries. This might address the numerous *respondent expectations* in CE surveys. However, there is a considerable need for a second edition of this book, to include recent studies using efficient designs (or both the efficient and orthogonal designs) and more rigorous analytical methods beyond the CL technique.

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David Raitzer and George W. Norton (eds.), *Prioritizing Agricultural Research for Development: Experiences and Lessons*, Wallingford, UK: CABI, 2009, 256 pp. ISBN 978-1-84593-566-5, £49/US$93.10/€73.50.

This edited volume presents the experience and insights gained by the Consultative Group on International Agricultural Research (CGIAR) and the Association for Strengthening Agricultural Research in Eastern and Central Africa (ASERECA) in the implementation of priority assessment approaches to develop agricultural research strategies in less-developed regions. The theme of this book focuses on the idea that to attain success in the implementation of agricultural research programmes in developing countries, public funds should be allocated using systematic approaches rooted in evidence-based research strategies.

The book opens with a description of the Participatory Impact Pathways Analysis (PIPA). PIPA is a new and evolving approach to implement priority assessments, which is now being used by several CGIAR centres. In general terms, this approach uses a participatory 'problem tree' model for appraising the potential impact of alternative research lines. In doing so, PIPA clearly defines assumptions on the users and adoption constraints for each research project. The main goal of this new tool is to help research managers to answer the question: 'given the project design, are the desired impacts likely to occur?'

Part II of this volume presents the experience of seven different centres and institutes associated with CGIAR in the development of their research priorities. These institutions have used a wide range of approaches: from consultative and qualitative strategies to the implementation of sophisticated resource allocation models. Two cases that deserve special attention are the International Potato Center (IPC) and the International Maize and Wheat Improvement Center (CIMMYT). IPC uses a formal learning-oriented approach based on a continuous and rigorous analysis of the economic impact of its programmes. Conversely, CIMMYT developed its own