

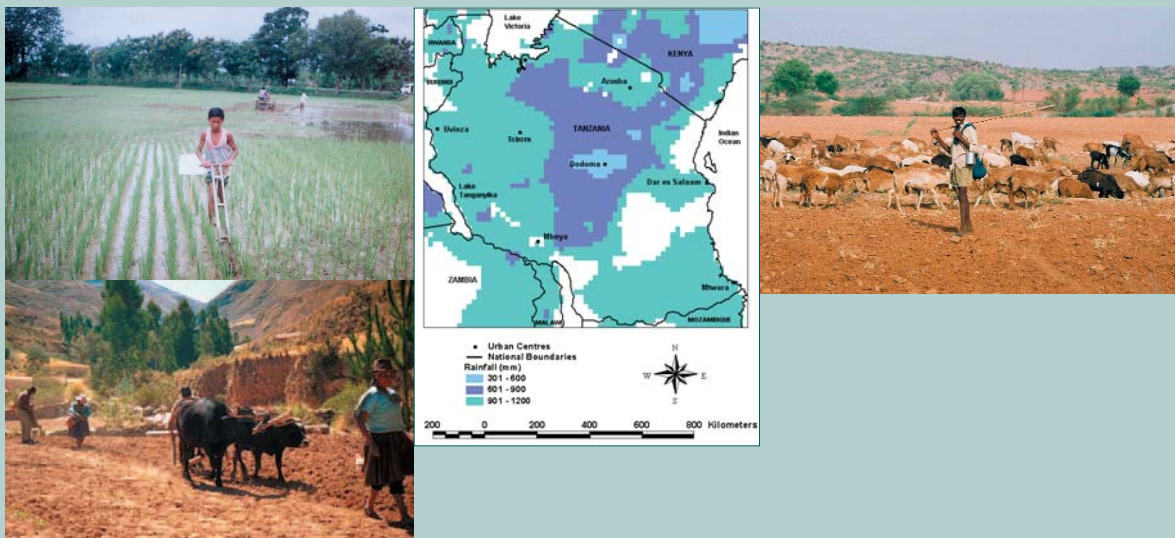


DFID Natural Resources Systems Programme



The Characterisation of Six Natural Resources Production Systems

J. Taylor, M. Tang, C. Beddows, F.M. Quin, M.A. Stocking



August 2003

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Technical Editors
Duncan Barker – duncan.barker@mail.com

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1 INTRODUCTION

1.1 SYSTEMS CHARACTERISATION OVERVIEW

This document reports on the characterisation of the six production systems that are one of the main features of the design of the Renewable Natural Resources Research Strategy (RNRRS) of the UK Department for International Development (DFID). The assignment – the Systems Characterisation Study – was undertaken by the Natural Resources Systems Programme (NRSP), one of the ten research programmes that comprise a major part of the RNRRS. NRSP was solely responsible for the decision to undertake the Study and for the method followed. Both the characterisation criteria that were used and the rationale behind the analysis of the characterisation data were those which best suited the reasons for NRSP's decision to undertake the Study.

The Study¹ took place in late-2000. This timing was just under halfway through NRSP's planned ten-year term and about two years after the UK Government had issued its White Paper 'Eliminating World Poverty: A Challenge for the 21st Century'. The White Paper gave rise to major policy shifts in DFID, in particular the prioritisation of poverty reduction and major emphasis on the sustainable livelihoods approach. In turn, although still within the context of the RNRRS, this led to some re-focusing of DFID's natural resources research, including that of NRSP, to ensure that it could contribute to DFID's developmental aims, centred on the Government's commitment to the internationally agreed target for poverty reduction.

The task of re-focusing NRSP's research agenda coincided with the time at which NRSP came under new management². At this time, it became evident that there was a need for the programme to have a sounder basis for priority setting, including the relative scale of attention to the six production systems of the RNRRS, all of which the programme covered³. This coincided with receipt of a query from DFID (as a result of the review of the Programme's Annual Report for the year April 1998 to March 1999) regarding the basis for the allocation of funds between production systems and the possibility of establishing priorities based on such characteristics as the number of people living in a defined system, how poor they are etc. Hence the decision to proceed with the Systems Characterisation Study with the aim of enabling the NRSP management team to make a relatively robust assessment of priorities between the six production systems, including the implications for appropriate levels of fund allocation. An important qualification regarding this aim is that it was grounded in DFID's policy priorities and, relative to this, the specified objectives of NRSP. Thus the *key driver* underlying the Study's method, particularly the decisions taken on how to characterise the production systems, was to develop profiles that either directly or indirectly through suitable proxy indicators were linked with poverty assessment and the opportunities for livelihood improvement.

The Study had *three main areas of work*: (a) characterisation of each of the six production systems against a set of common criteria; (b) the use of the data and information for these criteria to make relative assessments of priorities between production systems; and (c) demonstration of a simple procedure by which to make assessments of certain aspects of research priority setting relative to a donor's (DFID in this case) defined developmental objectives.

Section 2 introduces the six production systems and the target countries in which the research for each of these is conducted. This information closely reflects the baseline information available to the NRSP management team in April 1999. Section 3 expands on the guiding principles of the Study and describes the methods and sources used. Section 4 discusses the Study's findings, drawing upon the analysis presented in Appendices 2 to 4 of this report.

¹ / NRSP reference number PD092.

² / DFID awarded Hunting Technical Services Ltd (now HTS Development Ltd) the contract to manage NRSP as from 1 April 1999.

³ / Although the six production systems (PSs) provide an important planning matrix for the RNRRS, each of the ten research programmes do not necessarily conduct research in each PS. However, NRSP's research does address all six PSs.

Section 5 takes the form of a map album, with supporting notes, covering each of NRSP's target countries. The maps and notes define and highlight specific features of the production system(s) in a target country. Where relevant, a suite of maps (climatic, edaphic, eco-physiological) are provided to explain how decisions were taken on the boundaries of a production system in a particular country. The detailed profile sheets for the target countries in Appendix 1 underlie the supporting notes in Section 5.

The bibliography of the Study is provided in Section 6.

1.2 USING THE FINDINGS OF THIS REPORT

Although a complex of factors – economic, political, scientific and logistical, – come into play in deciding funding allocations for research, the potential *developmental impact* of the research arguably is the major baseline issue. In the context of DFID's policy priorities this could be defined as how many poor people may *benefit* by a piece of *research* and do these poor people satisfy the primary criterion for disbursement of DFID's *development* assistance? Other considerations could be what size of land area might be affected and the environmental implications; the possible scale of potential contribution to national economies; and the capacity for local (national) implementation and uptake.

The *answers* to these questions on the *scale* of potential impact of the application of research findings and *who* and *what* will benefit could provide a research programme, such as NRSP, with a baseline of information by which to make decisions on the allocation of research resources. These answers are not meant to be a straitjacket on priority areas for funding. However, where existing allocations differ significantly from allocations indicated by the assessments of need and potential impact, grounds are provided for questioning and re-assessing funding decisions.

Setting *boundaries* to production systems is an important aspect of their characterisation. The Study considered definitions very carefully in the context of the target countries involved and the definitions applied by others, including the donor. As a result, the definitions applied in the Study are not uniform across all the target countries of a specific production system. The treatment of each target country as its own individual case resulted in country-specific definitions for the production system(s) concerned. After making best judgements for the production system boundaries and assembling data for the characterisation criteria, the findings of the Study have provided a guide to:

- Relative priorities between the six production systems
- Allocation of the available budget to the defined production systems
- Allocation of the available budget to specific target countries
- Deciding priorities for commissioning of future research

An important feature of the work is that *flexibility* is built into the method used for the relative assessment of production systems and priority identification. Hence, within the framework of this method, it is possible to go beyond what is considered in this report, to generate results for additional policy-related priorities and production system potentials.