

WAGENINGEN UNIVERSITY & RESEARCH CENTRE

BUSINESS PLAN

TRADEOFF ANALYSIS AS AN OPERATIONAL
AND ACCEPTED TOOL FOR POLICY ANALYSIS



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AND ACCEPTED TOOL FOR POLICY ANALYSIS

RESEARCH TEAM

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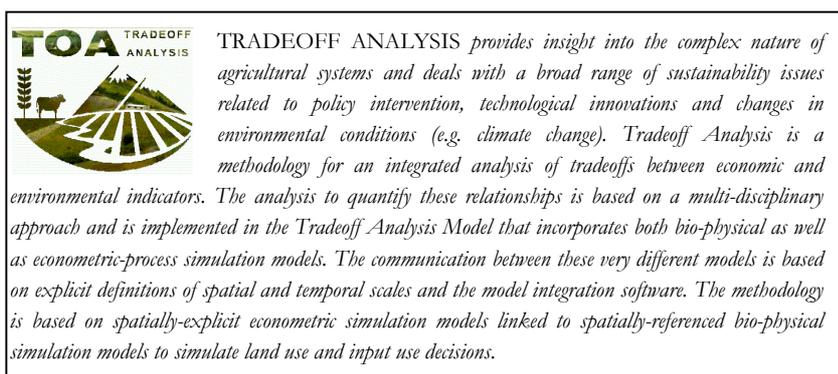
PROJECT DESCRIPTION

THE TRADEOFF ANALYSIS METHODOLOGY is one of the ecoregional methodologies developed with support of the ecoregional methodology fund. In addition, it received substantial funds from other donors. It includes as part of its research process the Tradeoff Analysis Model[®]. This research tool for ecoregional research is ready for application under a wide range of different environments. However, its acceptance by the research and policy community requires an additional phase for the consolidation of the tool. Consolidation includes the demonstration of its applicability, the development of training materials and methods for the transfer of the methodology to other research teams, and the institutionalisation of the methodology in institutions that are interested in it. The lack of this additional work is probably the main reason that a large percentage of research tools remain on the shelf after finishing the project.

In this project the main goal is make the tradeoff analysis methodology an operational and accepted tool for policy analysis. The project three basic work packages as described above:

1. The application of the tradeoff analysis methodology in another ecoregion to test its general applicability.
2. The development of training material and methods for the transfer of the tradeoff analysis methodology to other research teams (including its institutionalisation).
3. Communication of results.

The three work packages require and allow for the development of user-oriented, generic software that fits within a broader research process. Further methodology development is driven by new case studies, methodology transfer, and the wishes of potential clients that facilitate the communication of results. In this business plan we will discuss the activities for each of these three work packages.

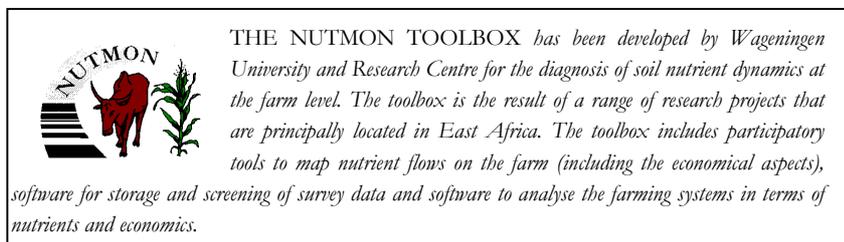


THE APPLICATION OF THE TRADEOFF ANALYSIS METHODOLOGY

The tradeoff analysis methodology has been developed in and applied to the Andean highlands. The agroecosystems in the Andean highlands are very specific. As a result methodologies that have been developed under those circumstances are not necessarily applicable in other ecoregions of the world. Before we can state that the Tradeoff Analysis Methodology has a more general applicability we will test it in the East African Highlands. The Tradeoff Analysis has a modular approach and links with models to estimate soil erosion (WEPP), pesticide leaching (PEARL), crop growth (DSSAT), tillage erosion, and carbon sequestration (Century) have been established. In the east African highlands soil nutrient depletion is one of the key processes that threatens the sustainability of the agricultural systems. For the application we will therefore establish a linkage with the NUTMON toolbox that is able to quantify the soil nutrient flows. This linkage allows us to bring the NUTMON analysis from a diagnostic level to a more prognostic level that allows for the identification of appropriate policy intervention strategies.

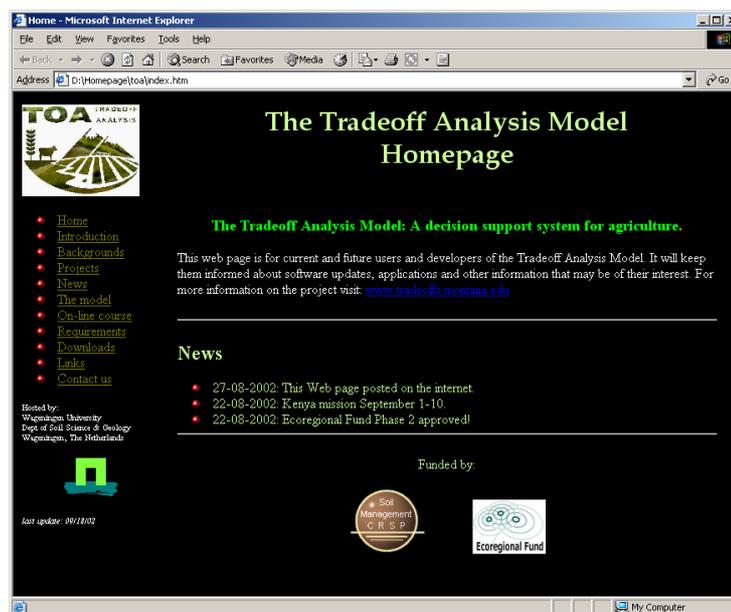
The application involves three different stages. First of all we will take one of the sites in which the NUTMON methodology has been applied and use the monitoring data to run the tradeoff analysis model. This activity has three major objectives. First of all we can develop the NUTMON interface and make the necessary software adaptations. Secondly, we have a case study to show to potential clients and stakeholders when we have discussions in other applications in Kenya. Thirdly, it allows for the definition of minimum datasets. A major constraint of this type of ecoregional tools is the data requirements. It is therefore essential to define minimum data sets that still allow for reliable answers to policy makers. The usage of existing data sets may be very useful. The most appropriate NUTMON dataset is for Machakos that include the proper economic data. In project year 1 we will therefore work with the Machakos research team to set up the tradeoff analysis model for that area.

At the same time we will intensify discussions with different research organizations that may be interested in the usage of the Tradeoff Analysis Methodology. Contacts have been made with ICRAF and Egerton University as potential collaborators. Further discussions with these groups should lead to the establishment of research teams that can apply the methodology in a range of projects in project year 2. The Tradeoff Analysis Program will provide intensive training and backstopping to these teams.



TRAINING MATERIALS AND TECHNOLOGY TRANSFER

The Tradeoff Analysis Methodology will only become an operational and accepted tool when we develop appropriate training materials and methods for technology transfer. In the Tradeoff Analysis program the strategy for all applications is that research groups interested in the application of the tools develop research teams for tradeoff analysis. These teams include bio-physical as well as social scientists. The tradeoff analysis program will support these teams through intensive backstopping and with sufficient training materials. The tools and the training materials are available through the Tradeoff Analysis Model Homepage (<http://www.tradeoffs.nl>). New material and on-line courses will also be made accessible through this website. This process receives continuous attention throughout the project. Part of the developments will be driven by the users of the methodology.

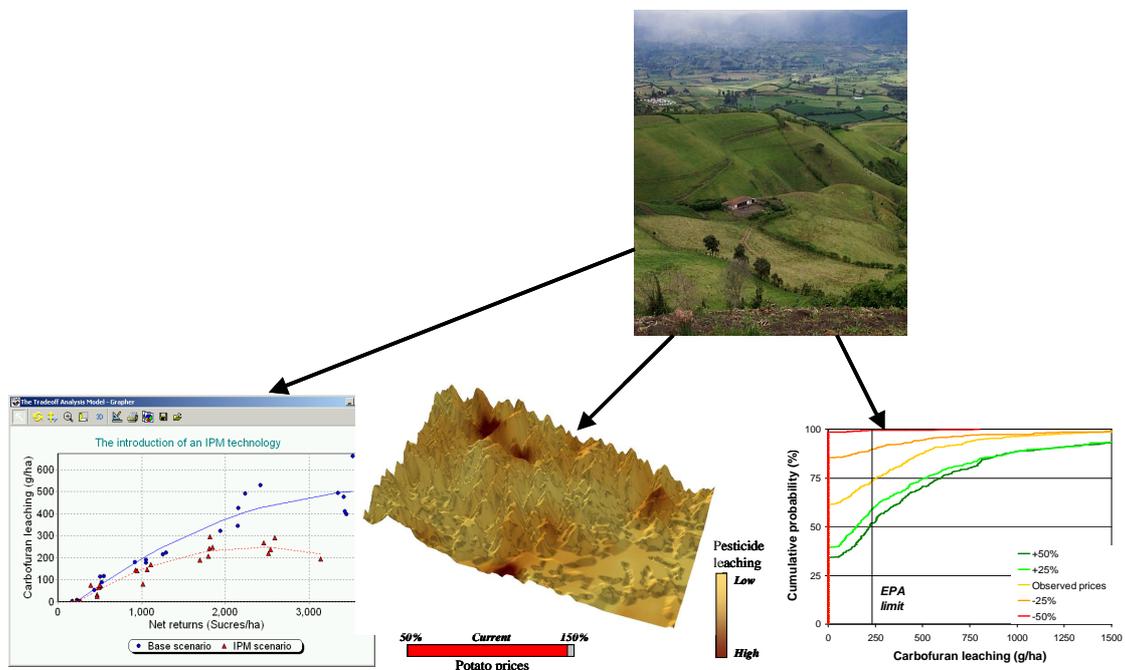


The project website (<http://www.tradeoffs.nl>)

COMMUNICATION OF RESULTS

For the Tradeoff methodology to become a widely accepted and used tool it is essential that results of methodological developments as well as results of applications are well communicated to potential users of the tradeoff analysis and its results. The Tradeoff analysis websites and a range of publications in both scientific journals as well as more popular media will be used.

Besides the general outreach of the methodology, an important element is how do we effectively translate tradeoff analysis results into policy recommendations? The presentation of research results in terms of appealing graphs and maps plays a pivotal role in this process.



WORKPLAN

- Different applications of the TOA Model require a range of adaptations. These adaptations involve new interfaces with environmental process models and more generic user interfaces. Together with software developments, team members will develop data standards for model interfaces.
- A PhD student will work on an application of the TOA Model using the NUTMON survey data. Her work will be supervised by members from the Tradeoff and NUTMON teams.
- The TOA method is an interactive process with those that apply the TOA Model and those that use the results of the model. We will develop manuals and other materials for use in training courses that will be a part of the implementation process. Continued interaction with user groups will take place through the (to be developed) interactive website.
- Team members will actively participate in regional and global initiatives related to ecoregional research put the TOA method on the policy analysis agenda.
- Specific attention in the applications will be paid to the question on how to effectively translate tradeoff results in policies.

The consortium proposes the following workplan:

Year	Month	Activity
2002	Jan-Jun	Setting up research network, Participate in stakeholder meetings, Contact policy groups, Presentations on TOA Development of research team, Recruit research assistants (soil science and ag. econ. background)
	Jul-Dec	Training multidisciplinary research team, Team workshop Site selection and data assembly, Development of GIS database, Analysis of survey database Linkage between NUTMON and TOA, Linkage between IMPACT and TOA, Adaptations to the TOA software. Linkage between IMPACT and TOA
2003	Jan-Dec	Application of the TOA process <ul style="list-style-type: none"> • Research priority setting in stakeholder meetings • Project design and implementation • Disseminate findings in stakeholder workshops and publications • Wrap up of application • Project evaluation • Reporting
2004	Jan-Dec	Disseminate results to other potential users CD hyper-text Post results on project web site Develop linkages with the BASIS model Analyze the use of aggregated data <ul style="list-style-type: none"> Census data <ul style="list-style-type: none"> National household expenditure/welfare monitoring surveys BASIS CRSP regional economic data. Adapt the TOA model to deal with other scale levels

BUDGET

	Eco-regional	SM-CRSP	Total
Kenya case study			
Research assistant (bio-physical)	\$70,000		\$70,000
Research assistant (socio-economic)	\$20,000	\$25,000	\$45,000
Programming	\$15,000		\$15,000
LEI-DLO	\$30,000		\$30,000
ISNAR	\$15,000		\$15,000
International travel			
JJ Stoorvogel	\$10,000		\$10,000
A de Jager	\$7,500		\$7,500
D. Bigman	\$5,000		\$5,000
C. Crissman	\$10,000		\$10,000
ICRAF	\$10,000		\$10,000
Domestic travel (100 days à US\$50)	\$10,000	\$20,000	\$30,000
Field supplies	\$6,250	\$6,250	\$12,500
Samples	\$6,250	\$6,250	\$12,500
Data collection	\$6,250	\$6,250	\$12,500
Vehicle maintenance & Insurance		\$6,000	\$6,000
Stakeholder workshops		\$20,000	\$20,000
Computer		\$5,000	\$5,000
Software		\$3,000	\$3,000
TOA global program			
Software development/ support		\$100,000	\$100,000
TOA website		\$20,000	\$20,000
Data standards		\$20,000	\$20,000
Training material		\$40,000	\$40,000
Total direct cost	\$221,250	\$277,750	\$499,000
Indirect costs (@ 10%)	\$22,125		
Total	\$243,375	\$277,750	\$521,125

SPECIFIC REMARKS

This project is part of a larger Tradeoff Analysis Program with activities in Ecuador, Kenya, Peru, and Senegal. Where the activities in Peru and Ecuador are the continuation of phase 1, the activities in Ecuador and Peru follow a similar set up. The main difference is that the focus of the project changed from research and development to application. In both countries a scientist will be stationed. In Senegal a post-doc named Bogar Diagana is already working. Currently, CIP is searching for an economist that will be based in Nairobi.

This project is a joint operation with funds from the ecoregional fund and the SM-CRSP. The proposal for the SM-CRSP (“The Tradeoff Analysis Project Phase 2: Scaling Up and Technology Transfer to Address Poverty, Food Security and Sustainability of the Agro-Environment”) was approved by US-AID and tackles a number of the issues listed above. The new SM-CRSP proposal funds applications of the Tradeoff Model in different environments and focuses on a number of methods issues related to scaling up the analysis to larger region that may have a higher policy interest.