



Project Title: Experimenting with the design of policies on sustainable resource management.

Progress report.

June 4~July 15, 2004

In this document we report the progress made on phase 1 since the last progress report (June 4). We also summarize activities realized during the period spanning January 1 to June 30, 2004 (or to be realized early July), as well as the budget spent or committed during that period. We propose a budget-neutral extension until December 2004 to complete phase 1; we provide justifications for such an extension, and we detail planned activities and spending for the rest of the year.

Table 1 (see end of document) gives a synthetic overview of activities realized between January 1 and July 4, and Table 2 details activities planned during the proposed extension (July-December). Approximately \$43780 of DMP funds (i.e. 71% of total) has been spent or is committed (see Tables 3 and 4).

Update on activities (June 4~July 15).

Since the last report (June 4) great progress has been achieved on most outputs, and many are now complete or near completion. Several student contracts and MOUs have been signed and activities have started and will be completed during the summer.

Progress on Outputs 1.1 and 1.2.

We have completed the review of environmental policy in the context of NEPAD (Output 1.1) and a first analysis of the legal and institutional framework of CBD in Sénégal (Output 2.2). The report for 1.1 is complete, while the report for 1.2 will be ready mid-July. We are now preparing a digest that will be translated in English. A student has been recruited to help.

What is needed to complete 1.2 is to verify in the field how these policies are being implemented in practice. First we need to identify stakeholders and players in areas where biodiversity protection is a critical issue; field work is in progress. Next we will examine how negotiation takes place between players in the management of natural resources and for the implementation of the CBD. Finally we will write and translate our key reports.

Progress on outputs 2.1, 2.2, 4.7.

Phase 1 has consisted in support to partners in their research agenda:

- Improving actual inventories with new transects and new measurements (tree height) to better take into account the role of tree species in ecosystem function. Although we will continue to provide support to our partners on a regular basis, this output (2.1) can be considered as completed.
- A training session in statistics, which consists in some formal training and support for processing inventory data of non-crop vegetal resources, is currently taking place in Bamba; this output (4.7) will be completed by the end of July.
- In the context of output 2.2 we have acquired a high resolution image (Quickbird) in order to link natural resources to microtopography and human settlements, in partnership with IER scientists who provide socioeconomics surveys and landscape mapping. This study will allow to assess extrapolation domain of indicators of human pressure on the resource that are obtained from on coarse resolution imagery and DEMs.

Progress on output 2.3.

The Desert Margin Program was initially centred on the zone of Bamba in the transition from the Sahel to the Sahara. We mainly worked in the characterization of the natural vegetation and its modification under the action of the pressure of anthropic origin. This output is complete and a full report is available.

We are now preparing a proposal to the DMP to push forward the scope of this study and upscale our results. In effect what we observe everywhere in Mali is the result of a process that started a long time ago and that spreads along a North-South gradient. Now the whole of Mali is suffering from the desert margin and human pressure, with a strong impact on biodiversity. We currently seek to define the importance of the services rendered by the biodiversity for the maintenance and the development of dry sahelian ecosystems. Indeed, each species has a particular function in the vegetation that is generally independent of the utility which it brings directly to the man. The dominant ligneous, *Acacia tortilis* subsp *raddiana* is remarkable so much its presence ensures a better fertility and an increase of the water directly available for the other species associated. Its fixing properties of nitrogen, its association with mycorrhizes and its capacity to go up water since the depth ('hydraulic lift') make this species an element essential to the complete functioning of the ecosystem. On the model of *the A. tortilis* we think that the great majority of the species brings services which are redistributed to the vegetation. In addition we seek to identify the rare and/or endemic species which are in the course of extinction in this sector. We think that it would be desirable to extend this research to a broader zone by including all the vegetable fields located at the margin of the desert. These species can be indicators of the evolution of the climates and human pressure. To know their

state, their distribution and their frequency would enable us to specify the evolution of the pressures exerted in margin of the desert. The proposed study would help add value to existing biodiversity inventories done by DMP partners.

Progress on output 3.1 and 3.2.

Output 3.1. The participatory map for Thiel is being updated and a student has been selected to do the field work on biological diversity of landscapes. We have written the terms of reference for a fellowship on local assessment of biological diversity, and assembled a steering committee. If the extension is granted we will proceed with the selection and recruitment process. Field work has to be done during the rainy season in order to take into account annual species.

Since June 4 no progress has been made on output 3.2 because of the unexpected unavailability of the perceived programmer for writing the biodiversity module. We will present preliminary results at the International Society of Ecological Economics in Montreal 5July 11-14). The module will be completed in September-October if the extension is granted.

Progress on Outputs 4.1 and 4.2.

Output 4.1 has started with the help of a student from Institut des Sciences de l' Environnement of Dakar University (UCAD); the study will be completed on August 17. Output 4.2 is now under the responsibility of Ecole Supérieure Polytechnique and LERG of UCAD. Reports are in progress. We have presented CIRAD contribution to DMP Senegal steering committee on June 18, and invited everyone to submit their demands for training.

Progress on Outputs 4.4 and 4.5.

These outputs will be completed by the end of July, but we will need some extra time to write, edit, and translate the reports.

The national model (Output 4.4)

- The national level model is being updated from an initial version developed in 1995 by CIRAD. The SCPSA has collected new data during the two last years and we are in the process of calibrating the new model.
- Cirad conducted a two weeks workshop in Tenkodogo in Burkina Faso with the SP/CPSA and the statistical service of Burkina Faso to calibrate the model. The model includes a microsimulation module (type of agricultural sector model taking into account farmers' heterogeneity). Two Burkinabè experts from the CPSA will spend three weeks in Paris and Montpellier to validate the model and to simulate various policy options.

- A study was conducted on the impact of cotton market liberalization on the Burkinabè economy using a sector model. The conclusions suggest that crop livestock integration can greatly help difficulties arising from the cotton sector liberalization.

The western region land use model (Output 4.4)

- The model of the western region of Burkina Faso (the cotton region) has been calibrated. Mr hamidou Seone is currently running various simulations to compare carbon emission abatement options. He will defend his thesis in September.
- In the framework of the collaboration with SP/CPSA, Hamidou Seone, ex-employee of the ministry of agriculture of Burkina Faso, was sent to Montpellier to prepare a master degree in agricultural economics. His master thesis is about bioeconomic modeling of carbon sequestration in Burkina Faso to draw curbs of abatement costs. Our hypothesis is that new cropping systems can produce a win-win situation reducing carbon emission and increasing productivity.

The food security simulation software (output 4.5)

- This simple simulation model is a prospective tool designed at the country level for sahelian countries of west Africa, from Mauritania to Chad.
- Written under Visual Basic, it has been continuously corrected and updated. The latest version, probably ported to Java, will be put on the web.
- A report in French is in progress with the analysis of 7 Sahelian countries.
- Bruno Barbier presented the Visual Basic interface and a paper on food security in Senegal and Burkina Faso at the Francophonie Conference on Sustainable Development in Ouagadougou June 1-4 2004. The model was also tested with the SC/CPSA form the ministry of agriculture

Partnerships

- Bruno Barbier visited the partners from the ministry of agriculture and INERA in Ouagadougou during the first week of June to explain the Desert Margin Program to the partners.

Justification for a budget-neutral extension.

Although most outputs have been virtually completed (or will be by the end of July), we need an extension until the end of the year to accommodate time and staff constraints given below. The budget stays unchanged.

- University students and professors are key players of CIRAD development strategy, however we missed the key dates for recruiting students (in October and at the beginning of 2004), while the professors are totally booked until the end of July.
- The consultants foreseen for various activities (programming, translation and edition) were not available on short notice. The core of Outputs 3.1 and 3.2 will have to be done during the rainy season, to take into account annual species and the presence of mobile people at their main camp sites.
- There was limited availability of partners for some activities (e.g. training in statistics) in June.
- The engineer responsible for completing output 4.2 had an operation; she will be operational again during the summer.
- Because of security concerns in the Gao-Tombouktou area, CIRAD has not allowed its agents to visit the area. The situation has somewhat improved now.
- Prospecting for high-resolution imagery for Bamba and obtaining quotations from vendors has been a tedious process, and it is only now that we are able to go on with planned research.
- We need a bit more time (until September) to run the three proposed models and to finish the report on land degradation for Burkina Faso.
- In general reports editing and translating are taking more time than expected.
- An extension will also allow to better team with national partners, ARIs, and IARCs, and STAT.

Conclusion.

Although we achieved good progress despite strong time and staff constraint, and that 90% of the project will be done by September, we would appreciate if ICRISAT could agree to extend the deadline for completing this project to December 30, 2004. We would spend most of the remaining budget (\$17720, i.e. 29% of total DMP budget) on grants for students or partnerships with universities, a little field work, editing and translating reports, meetings, and travel in the subregion to coordinate better with ICRISAT and other DMP partners. We will prepare the proposal for phase 2 in collaboration with DMP coordination bodies. For phase 2 the knowledge acquired during phase 1, as well as the experimental platform, the methodologies and the tools, will be mobilized for upscaling all DMP research of the sub-region, with an emphasis on capacity building and a better policy dialogue.

Table 1: Summary of activities realized and degree of completion of output

Output	DMP Activity (ARI Output/activity)	Result/Activity	Milestone (% done)	Activities realized (January-July 2004)	Impact/Justification	Possible follow-up
Output 1		Assessment of the current policy framework and its instrumentation, and on the current implementation of environmental measures				
1.1	5.1 (O5/A12)	Assessment of NRM policies in NEPAD	-final Report (100% done)	-literature review -hire 1 student for policy analysis -analysis of NEPAD NRM policies -complete and translate report	NEPAD is the vision for economic integration of Africa for 2025 and will shape development in the region; the way environment is taken into account by the economy is critical.	Possibility to influence NEPAD environmental agenda. Essential input to STAT workshop of phase II.
1.2	5.1 (O5/A12)	Pre-assessment of CDB legal and institutional framework in Senegal	- Provisional Report (80%)	- analysis of Senegal CDB situation -complete field work on stakeholders analysis	Most national environmental policies originate on global environmental conventions. CDB has shapes biodiversity policies in Senegal.	Full assessment of CDB and CCD for DMP countries. Essential input to STAT workshop of phase II.
Output 2		An assessment of resilience of rural sub-Saharan agro-ecosystems. with an emphasis on pastoralism and mobility and on the role of biodiversity and land degradation				
2.1	1.5, 1.13 (O1/A3, A9)	Indicators of human pressure on the Bamba environment, in a territorial context. (Mali)	-Report -Database (50% done)	-field work for study on perception of environmental problems -edit and translate report -options for high resolution imagery -purchase Quickbird image	By identifying indicators of human pressure on natural resources allows to pinpoint important drivers of change and provide a way for monitoring and evaluation of resource quality.	Introduction of human pressure indicators into at territorial scale land use models during phase II. Replication of the study to other DMP sites. Essential input to STAT workshop of phase II.
2.2	1.8, 1.9, 2.6 (O1, A2)	Experimental design for Bamba site (Mali)	-Report (95% done)	-review experimental design -Bamba site-edit report	This is crucial to ensure that results from field experiments can be extrapolated.	Replication of design in all the DMP sites to allow regional extrapolation. Essential input to STAT workshop of phase II.
2.3	1.8, 1.9, 2.6 (O1, A2, A3)	Assessment of DMP biodiversity inventories in Bamba (Mali)	-Report (100% done)	-realize study on the role of vegetal species on the function of	The role of specific species is particularly important in dry areas,	A common framework for inventories and analysis which

				agro-ecosystems. - review inventories -field work (surveys, data collection) -write and translate report	yet this role is not well understood. This will also be important for monitoring and evaluation, and quantifying human pressure indicators.	takes into account the specific role of species in native agro-ecosystems. Replication to other DMP sites. Essential input to STAT workshop of phase II.
Output 3		A series of well-documented case studies that provide co-generated biodiversity, land and water use rules, resource use models, policy recommendations.				
3.1	1.2, 1.5, 1.7 (O2, A2, A5)	Elicit local knowledge on NRM, biodiversity and climate change adaptation for MAS model (Sénégal).	-Report (50% done)	-update of land use map for Thiel site -literature review on participatory biodiversity assessment -TORs for student, and assembling of steering committee. -trip to Thiel to initiate dialogue on follow-up to participatory mapping and biodiversity research, and to plan focus groups.	The feedback of local communities on an MAS for their region is crucial to integrate modelling into local decision making. Conversely local knowledge is to be taken into account in policy design.	Exploring policy scenarios with local players.
3.2	1.2, 1.5, 1.7, 1.13 (O2, A2, A5, A10)	MAS for common pool resources management, adapted for biodiversity and climate change. (Sénégal)	-Report -Operational CORMAS model (90% done)	-rewrite Thiel MAS and update for climate scenarios, pond management, and forage growth -identification of new components for biodiversity module -TORs for subcontract to ESP for programming biodiversity module -paper submitted for ISEE conference in Montreal (11-14Jul04) and accepted.	The way biodiversity is perceived and taken into account by local populations is not well understood; an Agent based model allows to explore the impact of decision rules on biodiversity, according to various scenarios.	A companion modelling approach to policy design, to involve local players and local knowledge. Will be presented during the STAT workshop of phase II.
Output 4		A platform for information exchange, negotiation, and experimental economics, including EDE package, network, workshops, and action research.				
4.1	7.2, 7.3 (O3, A6)	Synthesis of Sahelian NRM networks.	-Report (50%)	- bibliography and methodology -TORs for consultant -hire consultant	Many networks already exist for sub-Saharan Africa, which are often under-utilised. We want to complement existing networks instead of duplicating one of them.	Ensure the DMP is present active in other networks.

4.2	2.5, 3.2, 3.3, 3.6, 7.2, 7.3 (O3, A6, A8)	Internet portal and mailing list of network members	-Report -Internet portal (90% done)	-TORs of subcontract with LERG/ESP for technical support -set-up internet portal -purchase of low cost computer -signing subcontract	Ensure an easy, democratic and lively sharing of information and knowledge .	More participation of civil society not directly linked to the project in the process of policy design.
4.3	7.3 (O3, A8)	Integration of French ARIs to the network	- Participatio n of ARIs in network animation (0% done)	-	There is a growing number of French economists exploring experimental and behavioural economics, which can help us design rigorous methodologies.	We expect increased participation of French economists in our network, particularly for phase II and III.
4.4	1.13, 3.7 (O5, A5, A10, A11)	An Interactive tool for national Food security assessment (West-Africa scope; case study in Burkina)	-Report -Web-based tool -Database (80% done)	- Data collection in Burkina of Food demand and supply - Scenario runs with stakeholders - Restitution to Ministry of Agriculture in Ouagadougou -assess training needs	Mathematical models that integrate economic and biophysical factors allows to quickly explore the range of outcomes of policy scenarios.	Models will be updated with most recent data for the DMP countries; a regional sub-model will be added. Key input to STAT workshop of phase II, will help to grasp the importance of parameters.
4.5	1.13, 3.7 (O5, A5, A10, A11)	Land use models at different scales (village, region, country for Burkina Faso) that take into account carbon abatement costs.	-Report -Operational model -Database (80% done)	- Review on land degradation in West Africa -contract arrangement with student - Scenario runs with stakeholders - Restitution to Ministry of Agriculture in Ouagadougou - assess training needs	Bioeconomic models implement linear programming to solve complex problems involving rational agents and constraints on the environment (as well as opportunities such as carbon incentives). They help provide good arguments to convince sectoral policy makers about the need for resource management to support a healthy economy	Models will be completed with most recent data from the DMP, including biodiversity. Essential input to STAT workshop of phase II, to ensure proper economic data is taken into account.
4.6	3.1, 3.5, 3.7 (O5, A11, A12)	Training needs assessment and planning workshop on environmental policy formulation	-Proposal for training package (50% done)	-realisation of mini workshop for designing training in policy formulation -compilation of CIRAD training modules -Identification of site, participants, draft outline on approach and and strategy; -inform Senegal DMP coordination and ask for trainikng needs	Policy design is a negotiation process backed by technical arguments. This workshop reviews with partners the way public policy is being shaped in West Africa. It will help all players understand their role and where they can make a difference.	Replication of the workshop to other regions and production of methodology guides. Essential input to STAT workshop of phase II, as well as for guiding socio-economic modelling for phases II and III

4.7	3.1, 3.5 (O5, A11)	Focus group on data collection with Malian partners and NGOs of the Gao-Tombouctou sub-region, which will include a hands-on training session in statistics.	-Report -Training material (95% done)	-prepare training material on data analysis -organize and run training session	The focus group will allow identifying training needs on data collection and analysis methodologies.	Replication to other regions, and production of training material.
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Table 2: Proposed activities if budget-neutral extension granted.

Output	DMP Activity (ARI Output/activity)	Result/Activity	Milestone (% remaining)	Activities planned (July-December 2004)	Impact/Justification	Possible follow-up
Output 1		Assessment of the current policy framework and its instrumentation, and on the current implementation of environmental measures				
1.1	5.1 (O5/A12)	Assessment of NRM policies in NEPAD	-final Report (0% remaining)		NEPAD is the vision for economic integration of Africa for 2025 and will shape development in the region; the way environment is taken into account by the economy is critical.	Possibility to influence NEPAD environmental agenda. Essential input to STAT workshop of phase II.
1.2	5.1 (O5/A12)	Pre-assessment of CDB legal and institutional framework in Senegal	-Report (20% remaining)	-field work on epistemic communities -edit and translate report	Most national environmental policies originate on global environmental conventions. CDB has shapes biodiversity policies in Senegal.	Full assessment of CDB and CCD for DMP countries. Essential input to STAT workshop of phase II.
Output 2		An assessment of resilience of rural sub-Saharan agro-ecosystems. with an emphasis on pastoralism and mobility and on the role of biodiversity and land degradation				
2.1	1.5, 1.13 (O1/A3, A9)	Indicators of human pressure on the Bamba environment, in a territorial context. (Mali)	-Report -Database 50% remaining)	-process Quickbird image -field work (surveys, mapping, data collection) -analysis and combination with spatial data at other scales -edit and translate report	By identifying indicators of human pressure on natural resources allows to pinpoint important drivers of change and provide a way for monitoring and evaluation of resource quality.	Introduction of human pressure indicators into at territorial scale land use models during phase II. Replication of the study to other DMP sites. Essential input to STAT workshop of phase II.
2.2	1.8, 1.9, 2.6 (O1, A2)	Experimental design for Bamba site (Mali)	-Report (5% remaining)	- translate report	This is crucial to ensure that results from field experiments can be extrapolated.	Replication of design in all the DMP sites to allow regional extrapolation. Essential input to STAT workshop of phase II.
2.3	1.8, 1.9, 2.6 (O1, A2, A3)	Assessment of DMP biodiversity inventories in Bamba (Mali)	-report (0 % remaining)		The role of specific species is particularly important in dry areas, yet this role is not well understood.	A common framework for inventories and analysis which takes into account the specific role

			remaining)		This will also be important for monitoring and evaluation, and quantifying human pressure indicators.	of species in native agro-ecosystems. Replication to other DMP sites. Essential input to STAT workshop of phase II.
Output 3		A series of well-documented case studies that provide co-generated biodiversity, land and water use rules, resource use models, policy recommendations.				
3.1	1.2, 1.5, 1.7 (O2, A2, A5)	Elicit local knowledge on NRM, biodiversity and climate change adaptation for MAS model (Sénégal).	-Report (50% remaining)	-update of land use map for Thiel site and Communauté Rurale -exchange about MAS model with communities. Hire students -study and focus group on adaptation issues (NRM, biodiversity, climate change) -identification of model components for local knowledge -edit and translate report	The feedback of local communities on an MAS for their region is crucial to integrate modelling into local decision making. Conversely local knowledge is to be taken into account in policy design.	Exploring policy scenarios with local players.
3.2	1.2, 1.5, 1.7, 1.13 (O2, A2, A5, A10)	MAS for common pool resources management, adapted for biodiversity and climate change. (Sénégal)	-Report -Operational CORMAS model (10% remaining)	-program biodiversity and climate change MAS model. -present paper at ISEE Montreal (11-14 July 2004) -edit and translate report	The way biodiversity is perceived and taken into account by local populations is not well understood; an Agent based model allows to explore the impact of decision rules on biodiversity, according to various scenarios.	A companion modelling approach to policy design, to involve local players and local knowledge. Will be presented during the STAT workshop of phase II.
Output 4		A platform for information exchange, negotiation, and experimental economics, including EDE package, network, workshops, and action research.				
4.1	7.2, 7.3 (O3, A6)	Synthesis of Sahelian NRM networks.	-Report (50% remaining)	-edit and translate report	Many networks already exist for sub-Saharan Africa, which are often under-utilised. We want to complement existing networks instead of duplicating one of them.	Ensure the DMP is present active in other networks.
4.2	2.5, 3.2, 3.3, 3.6, 7.2, 7.3 (O3, A6, A8)	Internet portal and mailing list of network members	-Report -Internet portal (10%	-write technical report and tutorial -train editors and provide technical support	Ensure an easy, democratic and lively sharing of information and knowledge .	More participation of civil society not directly linked to the project in the process of policy design.

			remaining)			
4.3	7.3 (O3, A8)	Integration of French ARIs to the network	- Participatio n of ARIs in network animation (100% remaining)	-email and meetings	There is a growing number of French economists exploring experimental and behavioural economics, which can help us design rigorous methodologies.	We expect increased participation of French economists in our network, particularly for phase II and III.
4.4	1.13, 3.7 (O5, A5, A10, A11)	An Interactive tool for national Food security assessment (West-Africa scope; case study in Burkina)	-Report -Web-based tool -Database (20% remaining)	- Hire programmer - Java programming of the interface -edit and translate report	Mathematical models that integrate economic and biophysical factors allows to quickly explore the range of outcomes of policy scenarios.	Models will be updated with most recent data for the DMP countries; a regional sub-model will be added. Key input to STAT workshop of phase II, will help to grasp the importance of parameters.
4.5	1.13, 3.7 (O5, A5, A10, A11)	Land use models at different scales (village, region, country for Burkina Faso) that take into account carbon abatement costs.	-Report -Operational model -Database (20% remaining)	- complete database - edit and translate report	Bioeconomic models implement linear programming to solve complex problems involving rational agents and constraints on the environment (as well as opportunities such as carbon incentives). They help provide good arguments to convince sectoral policy makers about the need for resource management to support a healthy economy	Models will be completed with most recent data from the DMP, including biodiversity. Essential input to STAT workshop of phase II, to ensure proper economic data is taken into account.
4.6	3.1, 3.5, 3.7 (O5, A11, A12)	Training needs assessment and planning workshop on environmental policy formulation	-Proposal for training package (50% remaining)	-select training packages -beta test a "light" version of tra training with UCAD students and interested DMP partners -complete report on training framework -submit proposal for preparing training material and organize training workshop in 2004.	Policy design is a negotiation process backed by technical arguments. This workshop reviews with partners the way public policy is being shaped in West Africa. It will help all players understand their role and where they can make a difference.	Replication of the workshop to other regions and production of methodology guides. Essential input to STAT workshop of phase II, as well as for guiding socio-economic modelling for phases II and III
4.7	3.1, 3.5 (O5, A11)	Focus group on data collection with Malian partners and NGOs of the Gao-Tombouctou sub-region, which will include a hands-on training session in statistics.	-Report -Training material (5% remaining)	-edit and translate report and training material	The focus group will allow identifying training needs on data collection and analysis methodologies.	Replication to other regions, and production of training material.

Budget

Table 3 show the distribution of expenses incurred (or committed) before June 30, as well as expenses planned for the extension period, according to the approved budget for Phase 1. The distribution of expenses according to UNEP budget lines is very close to what was agreed in the MOU. However, we would appreciate if ICRISAT could accept small changes in the distribution as detailed in table 4.

Table 3

	DMP		CIRAD		TOTAL	
	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec
1100 Project personnel	-	-	\$0	\$24 546	\$60 645	\$24 546
1200 Consultants	\$4 000	\$1 300	\$1 300	-	\$4 000	\$1 300
1300 Administrative support	\$9 250	\$750	\$0	-	\$16 650	\$0
1600 Travel	\$8 518	\$3 482	\$3 482	-	\$8 518	\$3 482
2000 Subcontracts	\$2 000	\$2 500	\$2 500	-	\$2 000	\$2 500
3100 Fellowships	\$3 558	\$1 142	\$1 142	-	\$3 558	\$1 142
3200 Group training	\$1 700	\$1 800	\$1 800	-	\$1 700	\$1 800
3300 Meetings, conferences	\$3 200	\$1 500	\$1 500	-	\$3 200	\$1 500
4100 Expendable equipment	\$3 300	\$1 200	\$1 200	-	\$3 300	\$1 200
4200 Non expendable equipment	\$3 330	\$1 170	\$1 170	-	\$3 330	\$1 170
4300 Premises	-	\$500	\$500	-	\$0	\$500
5100 Operation and maintenance of equipment	\$500	-	\$0	-	\$500	\$0
5200 Reporting costs	\$2 250	\$2 000	\$2 000	-	\$2 250	\$2 000
5300 Sundry (internet, postage..)	\$924	\$626	\$626	-	\$924	\$626
5400 Hospitality	\$1 250	\$500	\$500	-	\$1 250	\$500
TOTAL	\$43 780	\$18 470	\$17 720	\$24 546	\$111 825	\$42 266

Table4

	Contract		New distribution		Difference	
	DMP	CIRAD	DMP	CIRAD	DMP	CIRAD
1100 Project personnel	-	\$85 191	-	\$85 191	-	-
1200 Consultants	\$8 500	-	\$5 300	-	-\$3 200	-
1300 Administrative support	\$9 250	\$7 400	\$9 250	\$7 400	-	-
1600 Travel	\$10 000	-	\$12 000	-	+\$2 000	-
2000 Subcontracts	\$2 000	-	\$4 500	-	+\$2 500	-
3100 Fellowships	\$3 500	-	\$4 700	-	+\$1 200	-
3200 Group training	\$3 500	-	\$3 500	-	-	-
3300 Meetings, conferences	\$5 000	-	\$4 700	-	-\$300	-
4100 Expendable equipment	\$4 500	-	\$4 500	-	-	-
4200 Non expendable equipment	\$6 000	-	\$4 500	-	-\$1 500	-
4300 Premises	\$1 000	-	\$500	-	-\$500	-
5100 Operation and maintenance of equipment	\$500	-	\$500	-	-	-
5200 Reporting costs	\$4 250	-	\$4 250	-	-	-
5300 Sundry (internet, postage..)	\$1 250	-	\$1 550	-	+\$300	-
5400 Hospitality	\$2 250	-	\$1 750	-	+\$500	-
TOTAL	\$61 500	\$92 591	\$61 500	\$92 591	-	-