

**Ilo program – Cornell University**  
**“Improved economic analysis for decision making in Madagascar”**  
**Performance report January 2001 – December 2001**

**Executive summary**

The Ilo program of Cornell University aims to improve economic analysis for decision making in Madagascar. The specific objectives of the Ilo program – economic analysis are threefold: 1/ strengthened analytical capacity and output of local Malagasy institutions; 2/ improved dissemination and integration of that analysis into public and government policy discussions; and 3/ increased demand for such analysis, from both government and civil society. The importance of these objectives and the activities as well as the problems that were encountered to achieve these objectives in 2001 are briefly discussed below.

**Objective 1: Strengthened analytical capacity and output of local Malagasy institutions**

*Importance objective.* Madagascar has made in recent years a number of difficult but sound economic policy decisions that have improved the macro economic environment for private investment and growth. These decisions have resulted in positive economic growth and poverty reduction in recent years. Many more such policy choices will need to be made, especially as Madagascar embarks with significant additional resources on a new national poverty reduction strategy. The capacity to analyze data and supply information to address policy issues – and especially the capacity to quickly and effectively address specific topics as they arise in policy discussion – is essential to debating and formulating good policy. Given that there are few Malagasy government institutions that have the capacity to undertake quality economic analysis in the country, strengthening this capacity is essential.

*Activities in 2001.* Capacity in applied economic analysis was built in 2001 through hand-on experience and collaboration of Malagasy nationals with experts from Cornell in different economic studies. With the help of Cornell, government staff produced a list of quality reports relevant for national policy in 2001 (for the total list, see annex 3). These reports involved, for example, analysis on the monitoring and evolution of poverty over the last decade, poverty dynamics in USAID’s priority region Fianarantsoa, poverty and access to social services (health and education), and access to land and agricultural production (see section 1). A new agricultural economic study series was started up in collaboration with the national center for agricultural research (FOFIFA). Moreover, four training courses were organized. They included economic modeling, dissemination techniques, applied economic analysis, and GIS analysis (see section 4). Through all these activities, we increased the output of local Malagasy institutions and we strengthened analytical capacity for economic analysis in Madagascar in 2001 (for success stories, see box 3).

*Problems.* Given that there was a high demand on the time of economists at local Malagasy institutions in 2001, especially since resources under the debt reduction became available and different studies and surveys had to be started up, analytical output was available later than planned. Two of our reports that we were planning to finish in 2001, will now only be available in the beginning 2002.

## **Objective 2: Improved dissemination and integration of that analysis into public and government policy discussions**

*Importance objective.* Policy choices and the impacts of policy implementation are often complex. Many times they can be understood only in the context of a broad spectrum of relevant information, most of which is not available to the public in accessible formats. Circulating more pertinent information on specific issues to various groups through publications, through presentations in public fora and through the media is essential to properly frame issues and involve citizens and groups in decision-making. Strengthening dissemination is therefore essential.

*Activities in 2001.* The project team continued in 2001 to promote public discussion of all major research outputs via INSTAT's widely advertised public presentation, the "Point INSTAT Information" series held in Antananarivo. In collaboration with our Ilo partner PACT (see section 3), these public presentations were now also extended to the regional level. The team also produced four-page policy briefs for all major outputs to summarize key results in simple language. It was made sure that the results of most presentations were covered on TV and radio and appeared in local newspapers. On top of this, the Ilo program organized or participated in conferences, workshops and round tables on specific topics and themes. They included, for example, a national conference on the state of poverty in Madagascar, a workshop on rural development, several conferences on water issues, and the DRSP preparatory workshops, etc. (see section 1 & 2). Lastly, different partnerships were initiated to ensure that research results would be used as much as possible by different partners (see section 5).

*Problems.* There sometimes continues to exist a culture within government institutions of trying to limit timely dissemination to avoid being drawn into political debates. For example, the dissemination of the poverty report in Fianarantsoa has been delayed as the Prime Minister and the local governor do not agree with the results of the study (it is shown that their province is the poorest and that the poverty level has worsened over the last decade). Moreover, while our institutional partner INSTAT has hired communication experts over the last year, institutional capacity for outreach, at the regional as well as the national level, is still weak.

## **Objective 3: Increased demand for such analysis, from both government and civil society**

*Importance Objective.* Rigorously and fully programmed analytical agenda in prior projects has limited ability to respond to demand for more economic research on issues of current importance. By soliciting feedback from both civil society and government, the

Ilo program aims to better responds to needs. In order to take full advantage of such requests, Cornell deliberately introduced slack in their analytical agenda.

*Activities in 2001.* First, six pre-study workshops were organized to respond to additional demands of government and civil society. Second, two demand driven studies were completed and disseminated in 2001. The first study involved water valuation in Madagascar. Given that a new Water Law had been put in place, the study looked at what the impact of different prices would be on water use for different socio-economic groups (see section 1). A second study on the effect of cost recovery in the health sector on the poor was organized. This was in preparation of the discussion of the reform of health policies in the DSRP. Both studies were of current importance, the results were pertinent, the findings were presented to policy makers and helped in the public and government policy discussions (see success story 2). Lastly, together with PACT, Cornell started up a regional technical unit to better respond to demand for regional analysis in provincial decision making.

*Problems.* The study on the effects of cost recovery was delayed due to contractual problems between INSTAT, Cornell and USAID. This study then had to be rushed as INSTAT researchers had to prepare, organize, and supervise the new national household survey.

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**Main text**

**Introduction**

The Ilo program of Cornell University aims to improve economic analysis for decision making in Madagascar. The first requisite of informed policy making is that accurate information and sound analysis of complex economic issues be available to government and other concerned groups. The capacity to analyze data and supply information to address policy issues – and especially the capacity to quickly and effectively address specific topics as they arise in policy discussion – is essential to debating and formulating good policy. Careful analysis focused on forward-looking issues can play a major role in influencing thinking, debate and the overall economic policy agenda. Policy choices and the impacts of policy implementation are often complex. Many times they can be understood only in the context of a broad spectrum of relevant information, most of which is not available to the public in accessible formats. Circulating more pertinent information on specific issues, including information produced by ministries, donors, and projects, to various groups in public fora and through the media is essential to properly frame issues and involve citizens and groups in decision making.

The Ilo program started at the end of February 2000. While a number of contractual and logistical problems had to be settled in 2000, the project was in full gear in 2001. Significant achievements were made in analytical and outreach work, as was planned in the Implementation Plan of 2001. The Ilo program has retained its original philosophy and overall program design, while adapting to opportunities and challenges. We therefore contributed to the objectives of the mission of USAID and more specifically to its SPO (Special Program Objective) of Democracy and Economic Growth.

This performance report for the period January 2001 – December 2001 consists of five sections. The first section discusses the results. Section 2 documents the activities under the DRSP (Poverty Reduction Strategy Paper) amendment of the contract. The next section shows the linkages with our Ilo partner PACT. The report finishes with a description of capacity building activities and partnerships.

**1. Results**

The objectives of the Ilo program – economic analysis are threefold: 1) strengthened analytical capacity and output of local Malagasy institutions, 2) improved dissemination and integration of that analysis into public and government policy discussions, and 3) increased demand for such analysis, from both government and civil society. As first indicator for objectives one and two, we use “Number of quality economic studies disseminated and discussed in public fora” (section 1.1). Our second results indicator is: “Number of requests for follow-up or related analysis by civil society or government”

(section 1.2). It provides a means of monitoring our third project objective. Table 1 indicates the performance table over the life of the project.

**Table 1: Performance Data Indicators Ilo Program**

<b>Indicator 1:</b> <i>UNIT OF MEASURE: Number of quality economic studies disseminated and discussed in public fora per year</i> <i>INDICATOR/DESCRIPTION: Presentations made in public fora, i.e. accessible to a broad audience and announced in the media; broad dissemination of written reports and policy briefs.</i>	Year	Studies	
		Planned	Actual
	2000 (B)	2	2
	2001	6	6
	2002	7	
<b>Indicator 2:</b> <i>UNIT OF MEASURE: Number of requests for follow-up or related analysis by civil society or government</i> <i>INDICATOR/DESCRIPTION: The requests from civil society, stakeholders or decisionmakers through client-focused targeted discussion workshops and trough suggestions of the Economic Research Policy Group and the National Issues Network</i>	Year	Analysis on request	
		Planned	Actual
	2000 (B)	1	1
	2001	1	1
	2002	2	

### 1.1. Number of quality economic studies disseminated and discussed in public fora

6 major studies were finished and have been presented in public fora in 2001. The Ilo program has therefore met the targets that it set in its Implementation Plan for 2001. The six studies include:

*a. S1: Evolution of Poverty in Madagascar: 1993-1999.* The analysis involves descriptive investigations of changes in poverty by region, as well as by economic sector and household characteristics in an effort to identify vulnerable groups that appear to be susceptible to persistent poverty. This analysis was based on the three national household surveys that INSTAT did in 1993, 1997 and 1999. This type of analysis was the first of its kind in Madagascar and was the first comprehensive analysis of the evolution of poverty in Madagascar. While the government has stated poverty alleviation as one of its prime objectives, no systematic monitoring of this objective was ever available before. Several presentations of the study were done. There was broad coverage in written press, radio, and TV: summaries of the study were published in local newspapers and extracts of the public presentation and interviews of authors were on TV and radio. A policy brief was prepared and 500 copies printed and distributed within government, donor community, private sector, and civil society. Moreover, 500 copies of the complete report were printed as well and were made widely available.

*b. S2: Poverty dynamics in the province of Fianarantsoa.* Given that the province of Fianarantsoa is one of USAID's priority intervention areas, the methodology of the analysis at the national level was extended in more geographical detail for the province of Fianarantsoa. This study shows the high level of poverty in the province of Fianarantsoa and justifies the urgent need of interventions in this region. Unfortunately, INSTAT was unable to present the results as they had expected to do. As the results for Fianarantsoa as a whole came out rather bad (and were contested by the governor and the Prime Minister, who is born in this Province) and as the results of the study were available just during the

election period for the new president, INSTAT decided that public presentation would be postponed until the presidential elections would be over so that their results would not be misused and misinterpreted by politicians. Dissemination and a public presentation in Fianarantsoa are now planned in the beginning of 2002.

***Success story 1***

***The poverty dynamics study***

*For its deliverable S1, Cornell did a study on poverty dynamics in Madagascar, using the national household surveys that were gathered by INSTAT. Prior to this study, a World Bank team had done a poverty profile in 1996 based on the national household survey of 1993. However, given that this study was done by Washington experts with no Malagasy involvement, these numbers and underlying analysis were always referred to as the 'numbers of the Bank'. This hindered an agreement on the analysis of the existing situation and therefore the development of sensible poverty alleviation policies. Through a strategic choice of partners, Cornell wanted to get its numbers and implications of its analysis to be broadly accepted, by donors and local institutions alike. Therefore, a team comprising individuals from different backgrounds was put in place: Jean Razafindravonona, team leader of the local institution INSTAT, David Stifel of Cornell University, and Stefano Paternostro of the World Bank. The hope was that this set-up insured that analysis, numbers, and policy implications would be broadly accepted.*

*The poverty dynamics study has been published by three organizations: it came out as a INSTAT publication and has been published as a paper both at the World Bank and at Cornell University. The results of the analysis were presented several times by Cornell and INSTAT collaborators: at a workshop at USAID, at a public presentation by INSTAT (Point Instat d'Information), at an international conference on the state of poverty in Madagascar<sup>1</sup>, at the preparatory workshop for the DSRP (Document Strategique sur la Rééducation de la Pauvreté), and at other occasions.*

*The numbers and the analysis are now widely used in Madagascar and are the benchmark for any poverty reduction strategy. For example, this paper was the basis for the analytical part of the DSRP (Document Stratégique pour la Réduction de la Pauvreté), the national strategy that was developed this year by the Malagasy government. This strategy lays out the policies that the government would like to put in place in the next years to alleviate poverty in Madagascar and is therefore the key policy document for years to come. The analysis was further used in the development of USAID's strategic plan for 2003-2008. The poverty dynamics paper (and the paper of Cornell and INSTAT on access to health and education services) was referred to as 'key analytical pieces' for the development of the Country Assistance Strategy of the World Bank. It was also referred to in IMF's report on Madagascar. Because the study was the product of a collaborative effort, it allowed government and donors to agree on numbers and on the analysis and monitoring of the current poverty situation. Therefore, this study contributed to an informed policy debate and has helped in establishing a strategy based on facts and analysis.*

c. S4: Evolution in access to health and education, 1993-1999. Intensive collaboration between Cornell and INSTAT resulted in a study on the evolution of access to health and education services and its link with poverty at the national level. The paper clearly lays out strategies for a better pro-poor policy in the health and education sector in Madagascar. A policy brief was prepared and widely distributed. A presentation of the final findings of the study was done during a workshop at USAID by Cornell's expert. The study was further presented on several occasions in Antananarivo and in provinces by our INSTAT collaborators (during a point INSTAT d'information and during the provincial Journées Africaines de la Statistique in Mahajanga). In total, no less than 150

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<sup>1</sup> Dial/Ird, RESAL, and Madio organized an international seminar on "La pauvreté à Madagascar : Etat des lieux, les politiques de réduction et leur mise en oeuvre" on February 5<sup>th</sup> -7<sup>th</sup> in Antananarivo.

people attended these presentations. Moreover, during all the presentations, there was ample media coverage (radio, TV, written press). The numbers and findings of this study were further used in the preparation of the DSRP and formed, for example, the basis for a paper by the World Bank (by Stefano Paternostro) to develop the Country Assistance Strategy (CAS) of the World Bank.

d. *S7: Poverty and access to agricultural land.* The studies under this theme illustrate the strong link between poverty and land but show also the complexity of access to land in Madagascar, i.e. sociological and anthropological problems (i.e. the problems of descendants of slaves to have access to land, gender issues, ethnical differences), the increasing inequality in land distribution, the small effect of formal land titles on agricultural productivity, the linkages of land extensification, environmental degradation and poverty, etc.. However, the studies were hampered by the lack of recent data at the national level. To address this problem, questions were added in the new national household survey to better study the issue (this will be done under the theme S8 in 2002). A public presentation was done by a Cornell expert at the previously mentioned international conference. He presented a paper on the link between land extensification and poverty. No less than fifty people attended this presentation. The paper was made available during the presentation (and can also be consulted on DIAL's webpage). Four studies were further prepared under this theme: 1/ "Access to land and poverty" by Rolland Razafindraibe (published as a FOFIFA working paper and distributed to at least 80 institutions or individuals); 2/ "agricultural production, agricultural land and rural poverty" by Jean-Claude Randrianarisoa and Bart Minten; 3/ Two anthropological studies by Prof. Louis-Paul Randriamarolaza. These last studies have not been disseminated yet. They will be published in the beginning of 2002 by our partner institution FOFIFA.

e. *S12 : The economic value of water.* Access to potable water remains problematic in large parts of Madagascar. Better access, through improved cost recovery, is one of objectives of the new national Water Law. This study illustrates, through a survey that was done in urban and rural Fianarantsoa, how an easy methodology can be applied to estimate the benefits and the willingness to pay for public investments in water supply projects. The results are of clear use for cost recovery purposes for organizations willing to invest in water supply infrastructure. The results of the analysis also shows that extreme care in setting tariffs is necessary when the new Water Law is put into place: a differential water pricing structure for public and private taps is suggested as the poor use the public taps disproportionately and as little impact on JIRAMA's revenue is shown by the lower prices at public taps. Several presentations were done on this topic. No less than eighty people attended presentations of these results. One presentation was given to the people responsible for the evaluation of the national environmental program (PE II). "Tables rondes" for interested policy makers were organized in Antananarivo and in Fianarantsoa. In November, a whole day seminar was organized in Antananarivo in collaboration with the national environmental agency (ONE) and the USAID financed project PAGE to present, among other studies, the results of the water valuation. A policy brief was prepared and distributed and the two studies of our collaborators Zaza Randriamiarana and Rami Razafindralambo was made widely available. A synthesis paper of their results will further be published and distributed in the beginning of 2002.

f. *S13: The poor and cost recovery in the health sector.* The government of Madagascar made in 1998 dramatic policy changes on cost recovery in the health sector. No quantitative study on the impact of this change had ever been done and its effect was not well understood. A survey to study the impact of the policy change was organized in September 2001. 844 persons/patients and 40 administrators of public health centers in the three poorest provinces were interviewed. The analysis was finished in November and presented at a public forum ('point INSTAT d'Information'). 500 copies of the policy brief were printed and was widely distributed. The results of the analysis was covered in newspapers, T.V. and radio. The results were a major input in the discussion of changes in policies in the health sector during the national workshop on the DSRP (see box 2).

***Success story 2***

***The poor and cost recovery in the health sector***

*Under the demand driven studies, a commission of wise men (GRPE-'Groupe de Reflexion sur les Politiques Economiques') that was established with the purpose to assist the Ilo program in the choice of relevant research topics suggested to do a study on the effect of cost recovery policies in the health sector on the poor. It was felt that such a study could be of great use to influence policy making to improve the well-being of the poor.*

*The survey was organized in September 2001 in the three poorest provinces of Madagascar. The results of the survey showed that since the change in health policies (increased spending, decentralization, cost recovery), public health care centers function better: the quality of health care services improved; medicines are more readily available; and patients pay less informally. However, the results of the survey also showed that the cost recovery system had negative implications, especially for the poor as visits to the public health facilities dropped, particularly by the poor and during the lean period; the poor get no special treatment: they pay the same price as everybody else and; the poor use less medicines and rely more on alternative, less expensive, and traditional sources of health services.*

*While there was anecdotic evidence that this was the situation, it was the first time that the effects of cost recovery on the poor were explicitly quantified. This led to a more informed policy debate during the national workshop on the DSRP. MIDI, one of the leading national newspapers, reported for example that, based on the results of this study, a policy change was proposed under the new DSRP program where a special budget at the commune level would be put in place to pay for the health care costs of poor people.*

*The keys to the success of the impact of this analysis were the following: 1. timing: the results of the study became available exactly before the decisions had to be taken for changes in the national health policy; 2. outreach: it was made sure that outreach of the results was organized in different ways: a. bottom-up: our partner PACT used the results of the study during the organization of the national forum of the civil society in preparation of the DSRP; b. bottom-down: key policy setters in the government and in the donor community were involved from the design to the analytical stage of the survey; different informal meetings with these key players were held; c. INSTAT point d'Information: the public was informed of the results of this study during a public presentation (and covered by local media) organized by INSTAT; d. written support: a policy brief was prepared that got through different rounds of rewording to make message as clear and to the point as possible.*

1.2. Number of requests for follow-up or related analysis by civil society or government

The Cornell/INSTAT/FOFIFA analytical team collaborates with Pact in sponsoring client-focused targeted discussion workshops. These workshops will allow for issues

identification at all levels of society and may include representatives from farmers groups, neighborhood water supply users groups, parent-teacher associations, industry groups, national assembly committees, informed technicians in government, and other interest groups.

Specific targets or opportunities for research are regularly discussed by the Economic Policy Research Group (GRPE). This think-tank brings together institutions and groups with a vested interest in sound economic policy and in the use of objective information in policy making. Through this group researchers have the opportunity to discuss key economic issues with high-level officials enriching the agenda-setting process for research and generating a wider understanding of the political, legal, and administrative environment for policy making.

One demand driven study in the year 2001 was identified by the GRPE. The choice of this theme (S13) was on the impact of the cost recovery policy in the health sector on the poor (see above). The results of the analysis were presented at the end of the year 2001. Another demand driven study on water issues, identified in 2000, was also finished in 2001.

## **2. Poverty Reduction Strategy Paper (DRSP)**

USAID amended the contract of PACT and Cornell University in the beginning of 2001 with an additional mandate to prepare civil society for participation in the making of the national DRSP, a policy paper that would lay out the policy framework for poverty alleviation of the Malagasy government for the next years. This strategy was developed in a participatory process through the organization of a national, six provincial and seven thematic workshops, respectively on rural development, environment, governance, gender, AIDS, health and education, and urban poverty. The thematic workshops were followed by the publication of a draft final PRSP, discussed in regional and national consultations in October and November.

Following the proposal that PACT and Cornell jointly developed, the work was divided into two distinct periods, a consultative period for the writing of the final PRSP and an implementation period. While the consultative period was initially planned to last only until May, the national seminar to finalize the DSRP was only held in November. Hence, activities for the implementation period were not done in 2001.

This was the first time in Madagascar that civil society was involved in the elaboration of this important policy plan. It is clear that civil society participation has influenced the content of this plan due to their representation during the seminars, due to information that was made available to them before the official seminars and due to the improved institutional organization of civil society. During a national forum of civil society before the final workshop, representatives of 80 civil society groups decided that their activities would not stop at the final workshop but that they would be involved in monitoring and evaluation of the DSRP as well (the Comité ad Hoc).

The final PRSP paper is richer from inputs by civil society organizations in health, rural development and education. A major contribution of the whole PRSP experience is that government officials were willing to debate proposals with representatives of civil society organizations and that the latter were no more seen as adversaries but as organizations that can help and contribute usefully in policy making. Annex 4 documents the specific activities of Cornell under this component and how they contributed to the expected results.

### **3. Linkages with Ilo partner PACT**

Collaboration between Cornell and PACT has proven to be successful in 2001. We worked closely together in 4 different areas: pre-study workshops and dissemination of research results, the DSRP, regional information systems, and training.

#### **3.1. Pre-study workshops and dissemination**

During the year 2001, six workshops were organized to solicit input of government, civil society or the private sector in the design of our research activities. No less than 13 public presentations were organized to disseminate the findings of research (see section 1). Both organizations (Cornell and PACT through its subgrant with ASF) worked closely with INSTAT to organize these workshops and to ensure that information was available to appropriate institutions and persons.

#### **3.2. DRSP**

The collaboration between Cornell and PACT has significantly increased the participation of civil society in the consultative period for the DRSP. The activities under the DRSP activities are described under section 2 as well as in the performance report of PACT.

#### **3.3. Regional information system**

In 2001, Cornell and PACT started up a Unité Technique in both of USAID's priority regions, Fianarantsoa and Mahajunga. Each Unité Technique is made up of a regional economist, financed by Cornell University, and of a GIS specialist, financed by PACT. Cornell assures technical support for the economic analysis done by this unit. The Unité Technique works closely with the provincial authorities to improve dissemination of information at the provincial level. The Unité Technique of Mahajanga finalized a "Tableau de Bord Social" for that province. This is the first time that provincial statistics were put together in a comprehensive form and easily understandable by policy makers. The Unité Technique was also responsible for the supervision of the commune census in 2001. This census will serve for updated policy analysis in 2002.

### 3.4. Training

Two formal trainings were organized by Cornell in which PACT personnel organized training sessions on specific topics: 1/ training of regional directors of INSTAT in dissemination techniques and 2/ assistance in GIS training for INSTAT/FOFIFA collaborators.

## 4. Training and capacity building results

As stated in the proposal of the Ilo program, one of the prime objectives of the program is to improve local capacity for economic analysis in Madagascar. This was done in three ways in 2001: 1. through hands-on experience for INSTAT/FOFIFA collaborators; 2. through formal courses; 3. to actively widen collaboration with Malagasy researchers outside our two main collaborating institutions INSTAT/FOFIFA.

### 4.1. Hands-on experience

As studies are done in collaboration involving researchers of a local institution (INSTAT/FOFIFA or others) and Cornell researchers, two major benefits are seen: a. Through hand-on experience and involvement in each study, capacity in applied economic analysis is built locally; b. As research results are perceived to be the product of the research of local institutions together with Cornell University, the local government takes ownership of the results and government is willing to live with the consequences. In 2001, no less than 16 persons were trained through hand-on experience through direct involvement with studies in collaboration with Cornell experts. Moreover, two Malagasy collaborators traveled for one month to the U.S. to work with two Cornell experts and to be exposed to a research environment in a top university in the US.

### 4.2. Four formal courses were organized.

No less than 110 people were trained in formal courses organized by Cornell. They included:

*Course 1: Computable General Equilibrium (CGE) training.* At the end of January, an expert financed by Cornell University traveled to Antananarivo to work with Malagasy colleagues on updating the Madagascar CGE model. The expert conducted a one week long applied workshop presenting the model and applying it to issues of current importance. The 20 participants included key people from various institutions such as INSTAT, SPPM, the Central Bank, Ministry of Finance, etc.. The participants used the updated CGE model to study the distributional consequences of rising world oil prices and the impact of increased agricultural production on the Malagasy economy. A synthesis report was prepared. An evaluation by the participants of the workshop showed the high appreciation for the workshop and the utility of this type of economic tool.

*Course 2: Statistical and economic analysis and improved diffusion (for regional INSTAT directors).* A training of 6 days was held in the beginning of the year to train regional

directors in the use of STATA and in the analysis of INSTAT datasets such as the EPM, price data, etc. At the same time, they – as well as collaborators in the DRID-INSTAT - were trained in dissemination techniques (in collaboration with PACT).

*Course 3: Applied economic analysis.* A lecture series was organized for senior economist students at the University of Antananarivo. Around 60 students attended these lectures. The lectures focused on the use of economic tools for the analysis of agricultural problems (demand and supply modeling). Lectures were very well received by the students due to their applied nature, the examples of Madagascar that were used, and due to the course material that was distributed.

*Course 4: GIS analysis.* A GIS course was organized by a Cornell expert in the last week of November. This course was attended by around 20 collaborators of INSTAT, FOFIFA and the Ilo program. During the course, basic GIS principles were explained and put in practice through the use of the ArcView software by participants. Participants are now able to map socio-economic information and to use spatial tools for economic analysis.

#### 4.3. Collaboration with researchers outside INSTAT/FOFIFA

To broaden capacity building beyond the two main collaborating institutions INSTAT/FOFIFA, active collaboration was sought with promising Malagasy individuals with an interest in economic analysis. Six Malagasy students collaborated this year in the research program of Cornell University and will use or used this research towards advanced degrees in economics. These collaborators include Joeli Barison (SRI and agricultural productivity, Masters, Cornell University), Jean-Claude Randrianarisoa (rice productivity, Masters, Michigan State University), Lalaina Randrianarison (soil conservation, DESS, University of Antananarivo), Milaso Cheryl-Robson (poverty analysis, Ph.D., University of Sussex), Rija Ranaivoarison (land tenure and agricultural productivity, Ph.D., University of Giessen, Germany) and Laza Razafiarison (wood trade, licence, University of Fianarantsoa).

### **Success story 3**

#### **Impact of training and capacity building activities**

*Case 1: In the first year of the project, Cornell University organized a course on poverty analysis for eight Malagasy collaborators in Ithaca. In 2001, Cornell University, through our resident researcher David Stifel, continued to work very closely with these Malagasy collaborators on poverty analysis. Consequently, INSTAT is viewed as the center of poverty analysis in Madagascar and obtained, for example, a contract of the UNDP to do a series of disaggregated and detailed regional poverty studies in the three poorest provinces (Tulear, Fianarantsoa, and Mahajanga).*

*Case 2: Thirty people were trained in environmental economics during a four-day course in the first year of the project by experts of Cornell University, ONE and the University of Antananarivo. Ten of them were selected to do an applied research project on environmental economics. These studies were started in 2000 and finished in 2001. Three researchers of INSTAT were responsible for a case study. The expert of Cornell University supervised four of these case studies. Consequently, INSTAT obtained the contract to do the economic analysis of the impact of the national Environmental Program (PE II). One of the trainees was hired by the World Bank to work on the preparation of the new Environmental Program (PE III) and the rural review study.*

*Case 3: In the beginning of 2001, Cornell University organized a workshop on the Computable General Equilibrium (CGE) model of Madagascar. 20 participants of different institutions participated. Consequently, one of the participants (Joe Rabeantoanoro of the study department of the Central Bank of Madagascar) extended the model with a monetary component. He presented this new model in a seminar at the Central Bank and now uses it for planning and evaluation of monetary policies at the Central Bank.*

## **5. Partnerships**

One of the meanings of the Malagasy word “ilo” (“huile”) implies that the Ilo program will work in close collaboration with different partners in an effort to avoid overlap and to ensure maximum use of the research results.

a. *Malagasy institutions.* The Ilo program collaborated over the year 2001 and made agreements on collaboration for next year, with 10 national institutions. They include: 1. MADIO (collaborative effort on the labor market studies); 2. the national transport project PST (commune census – transport section); 3. the national environmental agency ONE, the environmental center CFSIGE and the University of Antananarivo (ten environmental economics studies); 4. University of Antananarivo (2 subgrants for research; organization of lectures for economic students); 5. the national center for macro-economic projections SPPM (training CGE model and participation in S6); 6. Central Bank (training model and participation in S6); 7. INSTAT (subcontract for at least 8 studies); 8. FOFIFA (subcontract for 3 studies); 9. the national geographical institute FTM (commune census - subcontract for the GIS mapping of communes).

b. *USAID’s implementing partners.* Moreover, the Ilo program made a special effort to advance USAID’s agenda for Madagascar. In 2001, we worked therefore with 6 USAID financed projects. They include:

1. PACT, our partner in the Ilo program; 2. PAGE (case studies in environmental economics; new study on economic impact of deforestation); 3. LDI (one study on the determinants of (dis)adoption of SRI (by Chris Moser); one study on the effect of SRI on rice productivity (by Joeli Barison); one study on water valuation by a LDI collaborator (Ramy Razafindralambo); involvement in the preparatory work on the DRSP); 4. JSI

(involvement in the preparatory work on the DRSP; clients of the cost recovery study); 5. CARE-SIRCAT (commune census – insecurity and natural risk component); 6. BASIS CRSP (help in start-up of the Malagasy component of the project).

*c. International institutions.* Lastly, we collaborated with four international agencies and donors. They included in 2001: 1. World Bank (collaboration in studies on poverty dynamics, poverty maps, access to social services study, cost recovery in health, agriculture and poverty; workshop on rural development); 2. FAO - SICIIV (Système d'Information et de cartographie sur l'insécurité alimentaire et la vulnérabilité) (commune census – food security component); 3. Secretariat Multi-Bailleurs (presentation agriculture study; results study and survey instruments available on their web-page); 4. Dial/IRD (workshop on poverty in Madagascar).

## **Annex 1: Synopsis results studies finished in 2001**

### **1. S1: Poverty dynamics at the national level**

Overall, poverty has increased during the 1990s. The modest decline in poverty observed in recent years was primarily driven by urban areas. By contrast, poverty rose persistently in rural areas. Following economic recovery in 1997, non-monetary indicators of well-being also improved. Any gains from the recent growth have not been shared equally across the country's regions. The rural poor are engaged mainly in agricultural activities, with more than three-quarters of the agricultural population living below the poverty line. While poverty among medium- and large-scale farmers declined slightly, the situation of the small-scale farmers has continuously worsened since 1993. Although gender disparities have decreased over time, women are still more likely to be poor than men. Households with relatively better educated individuals have a higher probability to escape poverty.

### **2.S2: Poverty dynamics in Fianarantsoa**

The incidence of poverty in Fianarantsoa rose from an already high level of 74.2 percent in 1993 to a staggering 81.1 percent, leaving it the poorest faritany (province) in Madagascar. An important finding that surfaces from this study is that poverty in Fianarantsoa is primarily a rural and an agricultural phenomenon. Alternative sources of income for farming households, such as non-agricultural enterprises, were found to contribute to the alleviation of poverty among rural households between 1993 and 1999. Two principal pressures likely contribute to the declining agricultural productivity that we observe. First, the remoteness of farmers limits their access to markets and provides disincentives to produce cash crops such as coffee, bananas, litchis, oranges and avocados. Second, as demographic pressures lead to the parceling up of land, to the consequent shorter fallow periods for annual crops, and to decreasing productivity of existing lands, agricultural households have increased their holdings as a long-term coping mechanism. Qualitative analyses suggest that the observed agricultural extensification is leading to the use of less fertile and more environmentally fragile land. Finally, this study finds that improving the quantity and quality of educational services, especially at the primary level, will go a long way toward alleviating the burden of poverty in both urban and rural areas in Fianarantsoa.

### **3.S4: The distribution of social services**

Despite recent improvements, strong differences persist in access to education and health services along several socio-economic dimensions. The accrual of education benefits to the Malagasy population, as measured by enrollment ratios shows a progressive distribution for primary, as well as for secondary education, in contrast to a markedly regressive pattern for tertiary education. With regard to health care, the poor primarily used basic care facilities while hospitals were mainly used by the rich. On the other hand, non-governmental facilities play an important role in curative and outpatient health care and provide at least as many services to the poor as to the better off in the population.

#### 4. S7: Agricultural production, agricultural land and rural poverty

Rural areas dependent on agricultural income, are often among the poorest in developing countries. However, little distinction is generally made within the agricultural sector. This lack of distinction hinders targeting of agricultural investments towards poorer farmers. This paper illustrates, using a production function analysis with flexible marginal returns, how agricultural production activities and returns to agricultural production factors differ by poverty level in the case of Madagascar. The results show that access to primary education is more beneficial for poorer agricultural households while additional secondary education has no effect. Returns to agricultural inputs are significantly higher for poorer agricultural households. Land inequality increases as land sales markets benefit the richer households and as the rich engage more in extensification while rental markets improve agricultural efficiency and may thus benefit poor and rich alike. Land titling has little effect on improved agricultural productivity but the rich possess disproportional more legal titles than the poor do.

#### 5. S12: The economic value of water

Under the new Water Law, water will not be considered a free good anymore and everybody will be required to pay for water use. The effects of this new policy are not well understood. The results of the study show that a significant part of the population is willing to pay for improved water quality and that cost recovery can work. However, it also shows that a part of the population is unable to pay for increased prices and will reduce water use or switch to alternative sources. Given that the poor rely more on public taps and the rich rely on private connections, a good targeting mechanism to help the poor is to charge higher prices for water on private taps than on public taps.

#### 6. S13: The poor and cost recovery in health

The study shows how since cost recovery in the health sector, public health centers function better: medicines are more readily available, patients pay less informally and the quality of the services has improved. On the other hand, there are also negative impacts, especially for the poorest of the poor. The poor seem to visit public centers less, especially during the lean period, they rely more on traditional healers, and a preferential treatment for the poor does not seem to work. Hence, a revision of the cost recovery policy to include the poor and especially for preventive care is recommended.

## **Annex 2: Status ongoing studies (final results expected in 2002)**

The Ilo program spent significant resources for preparation of upcoming deliverables in 2002. Some intermediary results were already available in 2001. These activities included:

*S3: Economic mobility.* This study looks at the typology of households that moved up, down, or stayed the same as well as at the causes of upward and downward mobility. The senior Cornell researcher and his INSTAT counterpart have finished the first draft of the report. The final publication is expected in the beginning of next year.

*S5: Fiscal incidence and poverty.* This study looks at the influence of changing tax rates on consumption profiles and at the effect of indirect taxes on the poor. Therefore, an Input-Output table has been constructed in 2001. The Malagasy INSTAT collaborator (Harivelo Rajemison) traveled to Ithaca to work with the Cornell expert (Dr. Steven Younger) on simulations and interpretations of these simulations. However, problems with data on oil and petroleum products have delayed the finalizing the report, compared to the Implementation Plan of 2001. The final report is now expected in the beginning of 2002.

*S6: Policy and poverty.* This study will model the impact of policy on economic growth and poverty. Paul Dorosh and Steve Haggblade, both of our partner institution IFPRI (the International Food Policy Research Institute), traveled to Antananarivo in December to help INSTAT in the start-up of the study (previous travel plans had to be changed to due security concerns of the 9/11 events). A pre-study workshop was held at INSTAT the second week of December.

*S8: Agricultural productivity and the poor*

- a. Ilo's collaborator, Jean-Claude Randrianarisoa of FOFIFA, used the data of a small-scale productivity survey in the Highlands that he organized in 2000, supported by the Ilo program, to finish up his Masters' thesis in Michigan State University. The study looks at the differential productivity of small and big farmers. The results of his thesis will be published in 2002 as a FOFIFA study.
- b. A field survey on agricultural traders and agricultural pricing was completed in the beginning of the year 2001. Almost 900 traders were interviewed. Analytical results are expected in the beginning of 2002.
- c. A survey on the adoption of SRI (Système de Riz Intensive) and the impact and constraints on the adoption of this promising rice technology was done by our Malagasy collaborator Joeli Barison and by Chris Moser (both Masters students at Cornell University). Both surveys were done in collaboration with the USAID financed LDI project. One paper will be published in the FOFIFA series in the beginning of 2002.
- d. Cornell helped INSTAT in the design and implementation of the new national household survey. An innovative agricultural section was included. It is hoped that these new data will solve the lack of information on agriculture at the national level. It is anticipated that analysis of these data will allow for better priority

setting in the agricultural sector. This is of extreme importance for Madagascar given that the majority of the poor in Madagascar depend on agriculture for their livelihood.

*S9: Spatial determinants of poverty, agricultural production and environmental degradation*

- a. For the first time in Madagascar, a national socio-economic census of communes was organized by Cornell in 2001. The survey was designed in collaboration with Prof. Barrett (Cornell University) and Prof. Fafchamps (Oxford University). While Cornell was the lead in this undertaking, implementation was done after an extensive participatory process in collaboration with our Ilo partner PACT and its regional collaborators. The survey was implemented in the field from August until November 2001. Data entry is on-going and first results will be available in the beginning of 2002. Analysis will be done together with PACT, the regional Unité technique, FOFIFA, INSTAT, CARE (insecurity and risk) and the national transport project PST (Projet Sectoriel Transport). 100 enumerators were recruited, trained, and hired for three months.
- b. Ten environmental economic case studies, done in collaboration with the USAID financed PAGE project and local institutions ONE and CFSIGE, were finalized. The results were presented in four workshops. Papers, survey instruments, and datasets were made available on a CD-ROM for future use by other researchers or for teaching purposes. The list of papers is available in annex 4.

*S10/S11: Urban labor markets.* This study will track changes in urban labor markets (employment, wage rates, labor productivity) for different skill classes of labor and by gender and will identify the scale of the informal sector, its evolution and importance to the poor. In 2001, a pre-study workshop was held by INSTAT during the visit of Cornell's expert. One of the two INSTAT collaborators traveled subsequently to Ithaca during one month to work on this study.

### **Annex 3: List of documents produced by the project**

#### **INSTAT**

Avril 2001 : Razafindravonona, J., Stifel, D., Paternostro, S., Evolution de la pauvreté à Madagascar : 1993-1999 (+ policy brief)

Juillet 2001 : Randrianarison, J., Randrianjanaka, N., Razafindravonona, J., Stifel, D., Evolution de la pauvreté à Fianarantsoa : 1993-1999

Septembre 2001 : Glick, P., Razakamanantsoa, M., La distribution des services sociaux à Madagascar : 1993-1999 (+policy brief)

Novembre 2001 : INSTAT, Evaluation des impacts du système de participation financière dans le secteur santé à Fianarantsoa, Mahajanga et à Toliara (+policy brief)

#### **FOFIFA**

A new working paper series was started up by the Ilo program in collaboration with FOFIFA. The series is called the “Cahier d’études et de recherché en sciences sociales”. The first two issues are :

No.1 : Razafindraibe, R., L’accès à la terre et la pauvreté

No.2 : Goletti, F., Rich, K., Options pour accroître le revenu et alléger la pauvreté en milieu rural à Madagascar

Studies that are currently already available in an English version will be published in this series in the beginning of 2002. They include:

Randrianarisoa, C., Minten, B., Agricultural production, agricultural land and rural poverty in Madagascar

Moser, C., The limitations of the System of Rice Intensification and lessons learned for agricultural technology promotion in Madagascar

Randrianarisoa, C., The effects of land quality and natural shocks on land and labor productivity in rice: the case of the Highlands of Madagascar

#### **PAGE/ONE/Ilo – environmental economics studies**

Razafindralambo, R., Valeur économique de l’alimentation en eau urbaine

Randrianarison, L., Les bénéfices sur site de la conservation des sols d’après une approche de changement de productivité

Randriamiarana, Z.B., Valeur de l'amélioration de l'alimentation en eau en milieu rural

Solonitomboariny, J., Dommage hors site de l'érosion: les effets de l'ensablement sur la production rizicole

Razafindramaro, J., Utilisation de l'analyse coût – bénéfice pour évaluer la rentabilité de l'application des recommandations de l'EIE : Cas de la Société Malgache d'Aquaculture

Faliniaina Rabevohitra, B.N., Impacts de l'utilisation des combustibles en bois et de la pollution atmosphérique à l'intérieur des maisons sur la santé à Madagascar

Rambeloma, T., Evaluation économique du Parc National d'Andasibe : Application de la méthode d'évaluation contingente

Andrianjaka, N., Valeur économique des produits forestiers autres que les bois

Rakotondrabe, T.J., Impact social et environnemental de la consommation de bois de cuisson par la population rurale

Ramaromanana, F., Valeur d'une ressource forestière et gestion durable : le cas de katrafay

Randriamiarana, Z.B., Razafindralambo, R., Larson, B., Minten, B., Water pricing, the new Water Law and the poor : the demand for improved water services in Madagascar

#### **Annex 4: Activities Cornell in preparation of the DSRP**

Six results were promised in the PRSP amendment of the contract. To achieve these objectives, the following activities were specifically organized by Cornell University (activities by PACT are discussed in their annual report):

Result 1: Increased public access to the PRSP document

- a. Cornell University made sure that the intermediary DSRP document was translated in Malagasy and that a large number of copies were made available to civil society.
- b. A large number of copies of the final DSRP document were made available to civil society prior to the workshop.

Result 2: Increased public access to focused information on specific issues and policy related to poverty reduction

Result 3: Increased understanding of poverty reduction mechanism, issues and policy among civil society groups

- a. Cornell helped to guide consultants that were hired by our partner PACT to put information packages for civil society together on rural development and health themes. These information packages (seven in rural development and four on health themes) were subsequently used in the preparatory workshops towards the training of civil society prior to the provincial DSRP consultation workshops.
- b. Cornell helped in the organization of a three day seminar on poverty in Madagascar in the beginning of February (in collaboration with Dial, IRD, INSTAT and Madio). Three papers on 1/ poverty dynamics, 2/ demand for health and education by the poor, 3/ land extensification and the poor prepared by the Cornell team and its local partners were presented. These papers were posted on a specially developed web-page on poverty in Madagascar (webpage Dial). This workshop was widely attended by policymakers involved in the making of the DSRP as well as representatives of civil society. No less than 200 people attended this workshop.
- c. Cornell supported public presentations by our local partner INSTAT in USAID's main intervention areas on the two themes that were selected: one presentation on health and education (in Mahajanga) and two presentations on poverty dynamics (with a large focus on rural development) (in Mahajanga and Fianarantsoa). It was made sure that civil society was informed and representatives of civil society were present at these events. A large number of copies of policy brief and reports was made available to participants.
- d. A study on cost recovery in health was done to gain additional insights in the way the poor are affected by the policy changes in the health sector (see section 1.2). It was made sure that this information was available to civil society prior to the consultative DSRP meetings.
- e. One seminar was organized in collaboration with the World Bank and UPDR (Unité Politique du Développement Rural) of the Ministry of Agriculture. Recent findings on rural development were presented to policy makers that

were responsible for the writing of the rural development part of the DSRP (such as the SG of Ministry of Agriculture, president EPP of PADR, Head UPDR). No less than thirty persons attended this seminar (among which representatives of USAID and other donors). Five studies that were done with support of Cornell through the Ilo program were presented.

Result 4: Increased and improved civil society participation in regional and national PRSP public fora

- a. Cornell partly financed the Civil Society Forum that was held prior to the national workshop of the DRSP and that was organized by our partner PACT. No less than 80 representatives of civil society groups attended this three-day workshop. Workshop participants nominated 35 representatives to the final PRSP consultation, held immediately afterwards.

Result 5: Commitment of regional organizations to pursue key issues beyond finalization of PRSP document

- a. The Comité ad Hoc DSRP, regrouping a multitude of civil society groups and a result of the previously mentioned workshops as well as others, is keen to pursue the integration of civil society organizations in implementation issues of the DSRP. PACT has committed itself to provide technical and financial support to this Comité.
- b. Cornell collaborators put significant time in the preparation and the set-up of the national household survey. This national household survey will be used as the monitoring tool of poverty and other indicators after implementation of the DSRP and will provide valuable information for civil society to engage in an informed debate on policy priorities. Cornell collaborators Stifel (expenditures), Glick (education), and Minten (agriculture) helped to develop and revised the design of the survey instrument that was implemented. Cornell financed the retreat of INSTAT researchers for discussion of final questionnaire design, the pre-testing of the questionnaire in the field and training seminars of enumerators. It also paid for travel expenses of FOFIFA collaborators to help in the enumerator training of the agriculture module.
- c. Regional economists were hired and made operational in USAID's priority regions. A regional information system (Unité Technique), in collaboration with our partner PACT and provincial authorities, was started up in Mahajanga and Fianarantsoa. This entity is responsible for wide dissemination of research results in the regions, especially in light of the preparation for the final DRSP workshops. It will help as well for the set-up of the monitoring in the regions of the implementation of the DSRP (in collaboration with INSTAT).

Result 6: Regional press organizations will be trained in poverty reduction policy and mechanisms and sectoral issues related to the fight against poverty

- a. No activities; planned in 2002