

Ilo Performance Report 2000

Economic Analysis

1. Set-up project

1.1 Institutional

Two subcontracts with the major local collaborating institutions, INSTAT and FOFIFA, were negotiated, finalized, and put in place (annex B1, B2). A subgrant procedure for amounts less than \$5,000 was approved as well (annex B3). A new advisory body, the "Groupe de Reflexion sur les Politiques Economiques" (GRPE), was established. It held its first meeting in the beginning of January 2001. From the beginning of 2001 on, it will help to identify key priority issues for analysis, then serving as a vehicle for diffusing the results more widely within government, the private sector and civil society.

1.2 Logistics

Local personnel were recruited for the project and a human resource policy was put into place. The move of two Cornell expats from abroad to Antananarivo had to be coordinated. Computer equipment and software for INSTAT and FOFIFA was purchased. The computer equipment was delivered by the end of December (11 computers, 10 printers, 4 voltage stabilizer, etc.). Vehicles for the collaborating institutions have been ordered and are expected to be operational by the end of January (3 Ford Rangers: 2 for INSTAT, 1 for FOFIFA). A policy for vehicle management was prepared. Construction works were done in FOFIFA-DRD building to improve office space of main collaborators. Regional economists will be hired and equipment for regional economists and photocopiers will be bought in the beginning of 2001.

2. Data preparation and analysis

2.1. Data preparation

Upon arriving in Madagascar at the end of July, David Stifel worked closely with INSTAT-DSM staff to organize, clean and label the data from the three EPM surveys. Concurrently and in close collaboration with World Bank staff, the task of constructing a household consumption aggregate to be used as a measure of welfare in future analyses was undertaken. This latter process highlighted many data-cleaning issues that were then tackled by the Cornell-INSTAT team. Extreme care was taken in the construction of the consumption aggregate to allow for comparability between the three EPM surveys. This was complicated by differing questionnaires (wording of questions, whole sections deleted, recall periods, etc.) and by data quality issues, and consequently the process took longer than expected. By the end of October, a CD was produced containing (a) all of the cleaned data files from the three EPM household and community surveys, (b) datafiles with the consumption aggregate and prices used for temporal and regional deflation, (c)

Stata programs used to construct the consumption aggregate and deflators, and (d) a detailed discussion of the methodology used in the construction of the consumption aggregate (see annex F). This CD was then distributed to all researchers involved in the Ilo program, INSTAT and the World Bank research team to ensure consistency in the data used.

2.2 Poverty dynamics: trends and causality

S1: *Poverty Dynamics*. The analysis of poverty dynamics involves using the just-cleaned data and the comparable consumption aggregate as the preferred welfare measure. 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. These levels and changes in poverty are compared to other non-money measures of welfare such as access to basic services and nutritional outcomes of children. This is followed by econometric analysis of the determinants of poverty and a relatively new technique of isolating the determinants of the changes in poverty using the results of the econometric models. A pre-study workshop was held in June (Annex D1). A descriptive analysis was completed in December and appeared as a preliminary paper. The econometric modeling and the study as a whole will be completed in January 2001.

S2: *Poverty dynamics in Fianarantsoa*. Methodological training of counterparts was done in Ithaca. Pre-study workshop was postponed until February 2001 – to achieve a more focused discussion – as the results at the national level would be available and would be presented during the workshop.

S3: *Economic mobility*. Panel dataset was created. No analytical activities.

S4: *Trends in access in public services*. Jean Razafindravonona, Iarivony Randretsa, and Peter Glick completed a French version of the report and a policy brief on "Services d'éducation et de santé à Madagascar: l'utilisation et les déterminants de la demande". In June/July Peter Glick worked with Mamisoa Razakamanantsoa in Ithaca to plan research on the upcoming study which will examine changes in access to public health and education services from 1993 to 1999, using the three rounds of EPM data. A pre-study workshop was done in the beginning of January 2001 (Annex D4).

S5: *Trends in fiscal incidence*. Study started. A pre-study workshop was held in September (Annex D3). Under this theme, a paper by Rajemison Harivelo and Steve Younger (Incidence of indirect taxes in Madagascar: Estimations based on an Input-output table, 20p.) was distributed before the workshop. An updated Input-output model for 1999, based on the updated Social Accounting Matrix, is being prepared.

S6: *Policy impacts on poverty*. Several working sessions were held at INSTAT to construct an updated Social Accounting Matrix (SAM) for 1999. This SAM is ready and will be used to construct an updated CGE by the end of January (by Dr. Yazid Dissou).

2.3. Agriculture and poverty

While some of the analysis will rely on the EPM data of INSTAT, most of the studies under this theme have to be based on primary data gathering and on other secondary data. Some small-scale surveys were organized this year.

S7: Poverty and access to land. One survey was organized in the sites where the IFPRI/FOFIFA did household surveys in 1997 (Fianarantsoa, Vakinankaratra, Marovoay). The Lac Aloatra area was added as an additional site. The survey focused on the functioning of land sales and rental markets, more specifically on relationships between sharecroppers and land owners (Annex E1, Annex E2). A pre-study workshop on this topic was organized in July (annex D2). One of the recommendations at the pre-study workshop was to put emphasis on sociological and anthropological aspects in land access and not only to look at economic explanations. As a follow-up, Louis Paul Randriamarolaza, a professor in anthropology at the University of Antananarivo, was asked and agreed to write a synthesis paper discussing land access and its link with gender, castes, and ethnicity. This paper will be distributed as FOFIFA working paper in the beginning of 2001.

S8: Agricultural productivity. A small-scale survey with 320 households was organized in Fianarantsoa, Vakinankaratra, and Marovoay (data from the Lac Aloatra area will be added later which would bring the total number of interviewees to around 600) (Annex E1). Data have been entered and have been cleaned. Jean-Claude Randrianarisoa in Michigan State University and Eliane Ralison of FOFIFA are analyzing these data. The results of the analysis are expected in the beginning of next year.

S9: Link poverty, environmental degradation, and agricultural productivity.

- a. A pre-study workshop (W9) was done, in conjunction with a presentation of Dr. Ben Okumu of Cornell University (post-doctoral fellow in charge of the BASIS CRSP project) (See 3.3) during which the structure of a bio-economic model was explained. This model would be a good vehicle to quantify the impact of policy interventions in any of the three areas. The workshop was well attended (around 30 technicians/analysts) with participants of different departments within FOFIFA, INSTAT, University of Antananarivo and ANAE (Annex D5).
- b. Given similar objectives, it was decided to link up with the USAID funded PAGE environmental economics activities under this component (see 3.2).
- c. The planned geographical referencing of households has been postponed until 2001 when INSTAT will organize the next national household survey (EPM4).

2.4. Urban labor markets

No activities in 2000.

3. Collaboration and contextual developments influencing the program environment

3.1. Poverty Reduction Strategy Paper (PRSP)

In 2000, Madagascar started the development of a Poverty Reduction Strategy Paper, a requirement for concessional lending in all countries receiving International Development Assistance (IDA) and an integral part of the HIPC debt relief process. In setting year 2000 priorities, INSTAT and Cornell University interacted closely with the World Bank team responsible for producing the Poverty Reduction Strategy Paper (PRSP) for Madagascar. Since many of their top analytical priorities coincided with our agenda, we agreed that these topics would be conducted jointly by Cornell University, INSTAT/FOFIFA, and the World Bank. The collaboration was intense and fruitful. One of these studies (S1) is almost complete and will be available by the end of January. Significant progress was made in 2000 on two other studies (S7 and S5).

3.2. Page/Ilo environmental studies

The USAID financed program PAGE (Projet d'Appui au Gestion de l'Environnement) started a program to build capacity in environmental economics in Madagascar. In this program, ten case studies were organized, dealing with different methods (contingent valuation, travel costs, hedonic pricing, etc.) in environmental valuation. Four of the ten studies are supervised by Bart Minten (as we believe that they fit squarely in the overall objectives of the Ilo program (improved economic analysis, capacity building, link environment and agriculture)):

1. Adoption of soil conservation techniques (by Mad. Lalaina Randrianarison – Université d'Antananarivo). The survey - in collaboration with ANAE (Association Nationale d'Actions Environnementales) - was organized in three sites in the Lac Aloatra area and in the Haut-Plateaux (south of Antananarivo). The study aims to analyze socio-economic determinants and the economic effects of the adoption of "semis direct" and "haies vives" on upland fields.
2. Off-site costs of soil erosion (by Mad. Joceline Solonitomboarinony – INSTAT). The data collection was also done in the Lac Aloatra area (300 households) in collaboration with ANAE. She will estimate primal production functions and quantify the productivity effects of soil erosion in irrigation channels and on fields, which would lead to economic estimates of the size of upland investments that could be justified to avoid externality cost of erosion in lowlands.
3. Water valuation Fianarantsoa ville (by Mad. Ramy Razafindralambo, LDI-Fianarantsoa). The study estimates the willingness to pay for water infrastructure improvements as well as economic costs of water supply deterioration. This study fits in the growing concern in the area on the dwindling water supply of Lac Antarambivy. The study also serves as input in the first demand driven study (S12).
4. Improved water supply as compensation for people living in areas surrounding national parks (by M. Zaza Burton Randriamiarana - INSTAT). Estimation of economic benefits of improved water infrastructure for households surrounding the national park of Isalo. This study is done in collaboration with ANGAP and ANAE.

3.3 BASIS CRSP program

A workshop on bio-economic modeling was organized in collaboration with Dr. Ben Okumu of Cornell University on December 8th (Annex D5). He prepares a project together with Dr. Chris Barrett on "rural markets, natural capital, and dynamic poverty traps in East Africa" (financed by USAID through its BASIS CRSP program (Broadening Access and Strengthening Input Market Systems – Collaborative Research Support Program). We would collaborate with this project under S9.

4. Training and capacity building

Cornell University conducts all analytical studies jointly with local partners, INSTAT and FOFIFA, and in some cases including other interested individuals or institutions as well. Each study involves an initial informal training session involving the key collaborators from each institution. These trainings took place either in Ithaca or in Antananarivo, depending on the location of Cornell's study leader. In addition to this on-the-job training, several topics of importance and broad interest enough merited broader formal training workshops. In the year 2000, we organized four such formal training.

4.1 Training 1. Introduction to economic modeling. Beginning in April, Steven Haggblade conducted a Tana-based weekly workshop on economic modeling methods, in which participants built simple single-market models and progressively added elements each week until they constructed, themselves, a simple computable general equilibrium model (CGE) for Madagascar. Participants included technicians from INSTAT, FOFIFA, SPPM, the Central Bank of Madagascar and Pact. In addition to providing participants with a variety of simple but useful analytical tools, the background and skills they acquired, helped them prepare them for the full-scale CGE work to be conducted in years 2001 and 2002 in collaboration with Yazid Dissou and Paul Dorosh (Program and participants of training in Annex C1)

4.2 Training 2. Poverty lines and anthropometry. David Stifel, Menno Pradhan, and Peter Glick conducted a seminar on alternate methods of constructing poverty line as well as on evaluation of anthropometry indicators of welfare. Eight key collaborators traveled to Ithaca for 3 weeks in July for intensive training (Program and participants in annex C2). Training involved use of the Stata statistical and econometric software (June 19-23), and concepts of poverty analysis (June 26 - July 7). Throughout the three week training session, the participants were assigned daily computer lab exercises in which they applied the concepts introduced in the lectures. The culmination was a set of presentations given by teams of participants.

4.3 Training 3. Environmental economics. In July, Francis Randrianarison (ONE), Hughues Rajohnson (University of Antananarivo) and Bart Minten (Cornell) conducted a 4-day workshop in Antananarivo on methods of environmental economic analysis. This served a dual purpose, in preparing local analysts for work on the spatial work linking

poverty, agriculture and the environment (S9) as well as providing support for the Page cases studies on economic valuation of environmental assets. (Program and participants in annex C3)

4.4 Training 4. Statistical analysis and STATA training. In November-December, two one-week long training sessions were organized in collaboration with the PAGE environmental economics program (training was done by Mamisoa Razakamanantsoa of INSTAT (previously trained in Ithaca)). Collaborators from the ten case studies, from FOFIFA, and from University of Antananarivo participated in this training.

5. Dissemination and dialogue

5.1. INSTAT distribution. These activities began with Pact posting a person at INSTAT to help assess current distribution machinery and to make joint recommendations on all phases of INSTAT's documentation, dissemination and outreach activities. INSTAT and Cornell continued to present and disseminate the backlog of prior joint analyses, notably those on the seasonality of poverty, synthesis study on poverty, and on factors affecting access to public services. 500 copies of each of these documents were printed.

5.2. Anthropological studies. In the previous Cornell project, three sociological/anthropological studies on safety nets were commissioned. 200 copies of these studies plus a synthesis were printed and they were sent to all the participants of the pre-study workshop held in 1999.

5.3. Pre-study workshops analytical studies. A half-day workshop for each analytical study was organized prior to undertaking analytical work. Five such workshops have taken place in the year 2000: 1. Access to land (S7); 2. Poverty dynamics (S1); 3. Trends in fiscal incidence (S5); 4. Trends in access to public services (S4); 5. Link environment, poverty and agriculture (S9). Participants and contents are presented in annex D. Participants included the principal researchers at Cornell/INSTAT/FOFIFA, Pact, a small group of representatives from civil society and government with experience and interest in the topic, and analysts with experience in the matter.

5.4. Media study. A survey with TV and radio stations and with newspapers was organized together with PACT and ASF in Antananarivo, Fianarantsoa, and Majunga. The results form the basis for a subsector study of the media. The study will highlight some of the reasons why Madagascar has such a diverse media landscape (especially compared to other African countries) and should help to better design dissemination efforts of the Ilo program. The analysis of the survey is in advanced stage.

5.5. Dissemination of research output. Several studies were finished, published, and disseminated over the course of the year. These studies include:

1. Dissou, Y., Dorosh, P., Dostie, B., Glick, P., Haggblade, S., Rajemison, H., Rakotondrainibe, S., Ralanatoarilolona, B., Ramarakoto, J., Ramaroson, P., Randretsa, I., Randriamamonjy, J., Ravelosoa, J.R., Razafindraibe, R.,

- Razafindravonona, Sahn, D., Simler, K., Younger, S., *Pauvreté à Madagascar: défi public et stratégies de ménages*, juin 2000, INSTAT-IMATEP, 87p.
2. Glick, P., Razafindravonona, J., Randretsa, I., *Education and Health Services in Madagascar: Utilization patterns and Demand Parameters*, june 2000, xxp.
Also available in French: *Services d'éducation et de santé à Madagascar: l'utilisation et déterminants de la demande*, juin 2000, xxp.
 3. Rajemison, H., Younger, S., *Incidence of indirect taxes in Madagascar: Estimations based on an Input-output table*, 20p. (also available in French: *Incidence des impôts indirects à Madagascar: utilisation d'un tableau Entrée-Sortie*).
 4. Ravelosoa, J.R., Haggblade, S., Rajemison, H., *Le comportement des consommateurs riches et pauvres: Une estimation des élasticités de demande à Madagascar à partir d'un modèle AIDS*, *Economie de Madagascar*, No. 4, pp. 77-103
 5. *Anthropological studies:*
 - a. COMODE, *Mécanismes amortisseurs et chocs économiques: cas urbain de Antananarivo*, 106p.
 - b. Grecs, *Mécanismes amortisseurs dans le Sud de Madagascar*, 133p.
 - c. Galy, M., *Anthropologie de la pauvreté: mécanismes amortisseurs à Tamatave et dans le Vakinankaratra*, 87p.
 - d. *Mécanismes amortisseurs qui jouent en faveur des menages vulnérables, rapport de synthèse*, 41p.
 6. Randriamarolaza, L.P., *Aspets culturels dans l'accès à la terre* (will be distributed as a FOFIFA – working paper)
 7. Fafchamps, M., Minten, B., *Property rights in agricultural trade in Madagascar*, forthcoming (being translated – will be distributed as a FOFIFA – working paper)

4.4 *Demand-driven studies.* One demand driven study was acted upon after a request by the Faritany of Fianarantsoa. A survey on urban water was done in Fianarantsoa (see 3.2). More activities on this topic are being considered.

6. Results

The purpose of economic analysis under the Ilo program is to produce analysis that is used for economic policy making. We were happy to notice references to our work in 2000 in major policy and economic strategy papers for Madagascar such as the Document Interimaire de Stratégie de Reduction de la Pauvreté (govt of Madagascar), *Reduire la pauvreté en relancant la croissance du monde rural* (govt of Madagascar), *Enhanced Heavily Indebted Poor Countries Initiative – Preliminary Document* (IMF, World Bank), *Food security strategy USAID 2003-2008* (USAID), etc. We believe that we have therefore contributed in 2000 to "improved economic analysis for decision making in Madagascar".

Monitoring results. We anticipated three principal results from our work: 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

indicator, we proposed “Number of quality economic studies disseminated and discussed in public fora.” Table 1 indicates the performance table over the life of the project.

Performance Data Table 1

UNIT OF MEASURE: Number of quality economic studies disseminated and discussed in public fora per year*	Year	Planned	Actual
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.	2000 (B)	2	2
COMMENTS: 1. 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.	2001	6	
2. 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	2002	7	
3. As the first year of the project will focus on preparation of good data for quality economic analysis, the indicator is set at 2 in the baseline year 2000. We expect this to grow to 6 and 7 in 2001 and 2002 respectively.			

*Note that this may include studies produced under our prior cooperative agreement for which interest remains strong.

While multiple studies of the project were disseminated, two studies were presented and discussed in public fora. The first study was on "seasonality of food consumption of poor households in Madagascar". An INSTAT point d'Information was held on May 4th. The presentation was well attended and there was ample press conference on TV and in major newspapers such as Midi and l'Express. An additional presentation was held at a gathering of journalists at the ACC. A second study was presented and discussed during the formal presentation of the fourth issue of "Economie de Madagascar" in October. The study is intitled "Estimation des élasticités de la demande à Madagascar à partir d'un modèle AIDS" and was presented by Rachel Ravelosoa.

Our second results indicator is: “Number of requests for follow-up or related analysis by civil society or government.” It provides a means of monitoring our third project objective. One demand driven study in the year 2000 was identified as discussed under 4.4.

Performance Data Table 2

UNIT OF MEASURE: Number of requests for follow-up or related analysis by civil society or government	Year	Planned	Actual
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	2000 (B)	1	1
COMMENTS:	2001	1	
1. 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 form farmers groups, neighborhood water supply users groups, parent-teacher associations, industry groups, national assembly committees, informed technicians in government, and other interest groups.	2002	2	
2. Specific targets or opportunities for research are regularly discussed by the Economic Policy Research Group. This think-thank 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.			
3. Resources have been reserved for four major demand-driven analyses, 1 in the baseline year 2000 and in 2001, and 2 in 2002.			

7. Implementation problems

7.1. The sub-contracts were signed significantly later than expected. This delayed procurement of cars and computers and hindered the start of the project. Lack of computers at FOFIFA for main collaborators on access to land studies delayed analysis of the recently collected data. Hence, results of these studies will be available later than planned.

7.2. Telephones have been cut-off in INSTAT headquarters and in FOFIFA-DRD due to non-payment of outstanding bills. The telephone does not work either in the new building of Direction des Statistiques des Ménages. This creates problems for e-mail access and internet connections for our collaborators. The financial situation is critical for FOFIFA as World Bank financing stopped at the end of the PNVA program. Activities in FOFIFA have been reduced to a minimum at the end of 2000.

7.3. TVA might not be incurred by USAID projects. As the current system for exoneration works badly, telephone lines and internet connections were often unexpectedly cut off and it took days and significant time loss to get connected again. Some suppliers for equipment refuse also to deliver in these settings.