

January 2008 International Trip Report: Ghana

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This report also covers traveler Thomas Walker, a Cornell Economics Ph.D. student, who traveled to Ghana with me for the AMA CRSP project and who remained in Ghana an additional three days to work on logistical issues concerning his upcoming year-long stay in Ghana with the project.

Dates: 4-15 January 2008

Itinerary: 4-5 January: travel from Ithaca to Syracuse to New York (JFK) to Accra
5-6 January: arrive in Accra, reading, review of project materials, meeting with Prof. Awudu Abdulai (a Ghanaian economist and professor of food economics at the University of Kiel, Germany).
7 January: team meetings with ISSER colleagues (Ernest Aryeetey, Robert Osei) and Cornell team (Chris Barrett, Tom Walker) at ISSER offices on the campus of the University of Ghana.
8 January: visit four sample villages and meet with key local opinion leaders
9 January: meetings with ISSER and UNU-INRA
10-11 January: Economy of Ghana Network programme at Elmina/Cape Coast
12-13 January: weekend back in Accra, informal visits with local colleagues
14 January: meet with USAID Mission, closing meetings with ISSER collaborators
15 January: Travel from Accra back to Ithaca
(18 January: Tom Walker travels from Accra back to Ithaca, after spending 15-17 January working on administrative issues with the Australian Embassy (he is an Australian national) and on logistical issues concerning lodging, transport, etc. for his long-term stay in Accra in 2008-9.)

Objectives: The purposes of the trip were, roughly in chronological order, (1) to meet ISSER colleagues and plan out the details of the South Akwapim resurvey to take place in 2009, (2) to visit the four survey villages in the South Akwapim region and meet with local leaders, discuss recent developments, explain the timing and purpose of our project, and seek their permission to return to resurvey households, (3) to participate in the Economy of Ghana Network Young Economists Outreach Programme, co-organized by ISSER and Cornell (under both the AMA CRSP project and the SAGA cooperative agreement), held at Cape Coast for approximately 80 people (mostly young Ghanaian economists from various universities and research institutes across the country), (4) to meet with the USAID Mission and other stakeholders in the AMA CRSP

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project activities in Ghana, and (5) to meet with various other Ghana-based researchers, including Prof. Awudu Abdulai (Professor of Food Economics at the University of Kiel, Germany) and Dr. Karl Harmsen (Director of the United Nations University Institute for Natural Resources in Africa).

Daily Log: 4-5 January: Travel from Ithaca to Accra. Uneventful trip, with a couple hours' sleep and quite a bit of reading and writing. Trying to keep a low-grade cold under control. It is hot and relatively dry right now, with Harmattan winds blowing regularly. The dust isn't too bad yet but will get worse until the main rains come in late April (through early July ... the minor rains come in September, with the main harvest in July-August, and a secondary harvest in November-December). Our host, Prof. Ernest Aryeetey, kindly arranged very comfortable rooms for us at the Villa Victoria, a 4 room guest house in West Legon, very close to the University campus. It's a bit isolated, but very clean, safe and hospitable, far more reasonable than the international hotels in town, and even has internet (albeit of spotty quality ... it cuts out regularly).

5-6 January: Meeting preparations and writing/reading time during weekend, with a long, enjoyable visit with Prof. Awudu Abdulai (a Ghanaian economist who is Professor of Food Economics at the University of Kiel in Germany) on Sunday afternoon at the Golden Tulip Hotel and at the Paloma hotel restaurant for a nice, local dinner. Tom Walker went to visit sights in the city center earlier in the day while I worked on a manuscript in the hotel and read in preparation for the upcoming week's meetings.

7 January: We met with the ISSER team: Prof. Ernest Aryeetey, Dr. Robert Osei and Ms. Vera to discuss details of the resurvey of the Akwapim South District sample of households. Ernest suggested the possibility of ISSER convening a 1-2 day workshop among projects working in Ghana on related issues: our AMA CRSP project, a Chronic Poverty Research Centre study with Abena Oduro and Ellen Aryeetey doing qual-quant work on risk, social networks and chronic poverty, a University of Lund (Sweden) project on farm-level risk management (in northern Ghana and eastern Region) with the Department of Agricultural Economics, the AMA CRSP project led by Dean Karlan, and the upcoming Millennium Challenge Corporation national panel survey with Yale (Chris Udry) that will have approximately 9000 households and be representative at both national and regional levels.

The MCA national panel is to commence in February, with data collection to be completed later in 2008. The complementarities between the 2005-8 large panel (which aims to revisit the 2005 GLSS V households plus

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additional ones) and the 1997-2009 small panel we are constructing in this project are potentially large. ISSER will need to write analytical reports on changes in living standards based on the MCA panel and would like our help in data analysis in 2008-9. This should fit well with Tom Walker's year-long residence at ISSER for the Akwapim survey and his dissertation interests.

We spent quite some time discussing possible additional modules or activities beyond simple replication of the pre-existing survey instrument. Options include village census with a small survey of extra-sample households so that we can map the whole of the social networks and fully describe the within-village network structures; retrospective recall of the evolution of social networks (and of social exclusion/isolation) to get at whether social invisibility is a dynamic equilibrium or a purely transitory phenomenon; more detailed health and anthropometric data so as to be able to look for health poverty traps in addition to more conventional asset/expenditure poverty traps; more detailed study of extra-village transfers (both inflows and outflows ... are they steady or responsive to shocks?); repeating the gift exchange module each round so as to generate higher frequency transfers data; using post-round community gatherings to conduct lotteries to generate positive shocks of different timing, value and forms (cash versus in kind), the diffusion and welfare effects of which we can then track over the year; comparison of pineapple and tomato growers; follow-up on social contacts identified in previous rounds; etc. Over the course of spring semester, Tom will prepare more detailed thoughts (details on contents, objectives, protocols, etc.) on the possible additional modules and we will then dialogue with Ernest, Robert and Jackie about these options, cost them out to see what is financially feasible (and perhaps write additional grant proposals, as needed), etc. Then over the summer, we will draft these additional modules, with an eye to pre-testing them in July/August, revising them and running them through Cornell's Institutional Review Board to secure human subjects research clearance in fall 2008, and launching in early 2009. In fall we will also need to work out the exact details of the household tracking protocol, as well as replacement/supplementary sampling protocols and recruit enumerators (including extra we will train as replacements in the event we lose or must dismiss some of the core group).

We got clarification on the definition of households used in this survey: it is the "eat from same pot" definition, operationalized in terms of primary material support (e.g., children away at boarding school are members of the household). In the case of polygamous households, wives who do not reside in the same compound with their husbands will be in a different "household" – either head themselves or headed by their father, if they still reside with their parents.

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We agreed that we will track all households that migrate or split that remain within Eastern or Greater Accra regions; if we can identify coordinates for households that have moved further, we will try to contact them as well, but have low expectations of this and will do so purely on an opportunistic basis.

We also agreed that we should begin in each village by reconstructing the sampling frame and drawing replacement households for those that have been lost from the sample and supplementary households so that the 2009 round will be representative of the villages just as the 1997 one was, in order that we can use descriptive statistics from the repeated cross-sections as a robustness check against those from the panel households (since the latter are not representative of the current population, even aside from the attrition issue). Then there will again be eight week intervals between revisits of households (four weeks per village, with each enumerator team handling two villages ... one month in one, the next month in the other, then back again). We should get five or six rounds completed over the course of the year.

We will ask about cell phone access and record cell phone numbers for respondents, which should help with later tracking of the same households. Tom may also photograph all respondents, both to provide them with a printed keepsake and to further facilitate future tracking of panel households.

The vast and lovely University of Ghana campus was relatively quiet during this visit, with few students milling around. There were a few short courses taking place, but the university as a whole was not yet back in session (the academic year runs August-May, much as in the US). Apparently, the government is keeping the universities closed until after the African Nations Cup soccer tournament finishes in end-February as they need to use the dormitories to house the 1-2 million visitors expected from around the continent for this massive football event.

8 January: We visited the four survey villages to meet with opinion leaders. Robert and Vera organized the visits along with Bob Afedoe, one of the senior enumerators who worked with Udry and Goldstein on the 1997-8 rounds as well as with Jackie on the 2004 round. We first visited Konkonuru, which is on the way from Accra to Aburi, then Oboadaka (on the way from Aburi to Nsawam), then Pokrom (further along the road from Aburi to Nsawam), then finally Ashweriase-Daman (off the road from Nsawam to Kumasi). Each of the visits was relatively brief, only 1-2 hours, for the purpose of introducing ISSER and Cornell, making them aware that we hoped/planned to return in 2009 for an extended resurvey,

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and asking about developments since 2004. We had originally planned to take longer and have Jacqueline Vanderpuye-Orgle present basic results from the 2004 resurvey she conducted and her related dissertation research. But unfortunately, at the last minute Jacqueline's work obligations forced her to cancel her trip.

Let me begin by making several general observations. First, Akwapim South District has relatively good market access; it is within an hour's drive of Accra and there is a good, paved road through the western part – toward Kumasi – and a new, multi-lane paved highway through the eastern part (to Aburi). There are villages that are well off the road, and the route between Aburi and Nsawam, although presently being improved, is certainly of poor quality and would be difficult in the midst of the rainy season. But this area relatively well off by rural Ghanaian standards, owing in part to this relatively good market access. Second, this District has apparently been selected as a focal District for the upcoming Millennium Challenge Account funding programs. Thus there are likely to be disproportionately greater improvements made here than in many other areas in the coming few years. All of this will have to be kept in mind as we study household welfare levels and dynamics, especially in making broader inferences.

Second, in several villages people expressed concern that previous researchers have not returned to brief them on findings of the studies based on the data collected in these villages. We tried to communicate the value of some of these studies and conveyed our apologies that Jackie was, at the last minute, regrettably unable to travel to Ghana for this trip and to present her results. We need to try to get her back to present her findings in 2008, perhaps in August if we do pre-testing of new modules in conjunction with the small workshop Ernest proposes to organize among the research projects currently working on related topics in Ghana. There is clear demand for this information. People were supportive of us returning to resurvey households and were for the most part extremely welcoming. But there is clearly an interest in knowing what they will get from this exercise and a desire for at least some direct return of information.

Third, I was struck by how little NGO presence there was in any of these four villages. Other than a little bit of outside support for schools in Konkonuru and Pokrom and a CBO plantation in Oboadaka, there seems no activity and none of it by any of the major international NGOs active in Ghana. It's only four villages, so this could be random, but I wonder if this is indicative of the relatively better off conditions in Akwapim South relative to other areas (especially in the north). We asked about NGO activities explicitly so that we might arrange to visit with any that are

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currently or have in recent years been engaged in these survey villages. So unless there's an implausible collective loss of memory of such interventions, these places have largely been bypassed by the NGOs. Interesting.

Now on to site-specific observations from our village visits. I should note that I am also appending to this trip report notes made by Tom Walker offering his perspective on these visits. Some of the observations are the same, but there are some interesting different insights that make those notes a very useful addition to my own. So as to keep the two distinct, however, I include those verbatim from Tom as Appendix 1 to this trip report.

The first visit was in Konkonuru, really more a town than a village. It has about 3000 people now (roughly 500-600 households at an average of 5-6 persons/household), has electricity and piped water, and the road there has been improved and tarred. These are, apparently, all developments since 2004. A health center is presently being built, just on the way into town. The population has grown quickly, with perhaps some modest net in-migration as public goods and services have improved quality of life and the accessibility of the village. These government-funded improvements have clearly generated private investment, as a long extension of the road is being improved and a massive private resort built just beyond the town by a private firm that owns a domestic restaurant (fast food) chain. We visited the complex under construction; it is large and impressive, with fruit tree groves, well-groomed grounds, a massive, castle-like structure, etc. It will be interesting to see what sort of labor market and other effects that generates for Konkonuru and its residents.

In Konkonuru we met with six men and one woman, all unit committee members (unit committee is a local village/town council), elders and/or teachers. The chief was out of town, but his spokesman attended the meeting. All but the most elderly participant spoke at least some English. They indicated that the livelihoods in the village remain largely unchanged: maize, cassava and yam. But the educated young all leave to find work in cities, they say, and it would appear that there are significant remittances back to town and/or temporary work in Accra, Aburi or other larger places by Konkonuru residents. They say that quality of life has definitely improved since 1997 and even since 2004, thanks largely to the public goods (electricity, health clinic, water, paved road) provided by the government and improvements made to the local school by the Rita Marley Foundation. (Note: Marley has a recording studio nearby, on the main highway to Aburi.)

After the very pleasant meetings in Konkonuru, we then headed to

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Oboadaka, a much smaller and clearly less-well-off village (actually, three hamlets but treated as a single village in the survey). About 900 people live in the village (~150 or so households) with some population growth since 2004 but no significant outmigration as few local residents have the education to get good jobs in the cities. Some people migrate out temporarily for work, but return. We had a very festive gathering with 22 people (16 men and 6 women) from a variety of different positions of authority and influence in the community although, as in Konkonuru, the chief was not available and thus his representative took his place.

Pineapple and maize are the main livelihoods here. They suffered some problems with pineapple for a while in roughly 2002-4 as the market for the variety formerly cultivated dried up. Buyers stopped paying for crop and farmers had serious problems. The Oboadaka farmers transitioned to a new variety (MD2) for which there is a much more reliable market. But production costs for this variety are higher, especially chemicals and labor, so most farmers have trouble affording the suckers (seedlings) and cultivate less acreage in pineapple now than previously. Notably, this crop shock was a marketing shock, not an agronomic one. As we will see when we come to the fourth village (Daman), there is an interesting question of who drops pineapple, who switches varieties and who tries to carry on with the older variety.

The pineapple marketing shock was serious problem for Oboadaka and quality of life here has deteriorated since 2004, the leaders report. They still have no electricity or piped water. Supposedly, the road is to be improved, but nothing has happened here yet (although we noted that from Aburi, the road was being graded and improved, although the improvements were still some distance from Oboadaka). A health clinic was constructed and opened, but has since become inoperative. The people here lack access to credit and thus have been unable to invest in much and had difficulty making the transition between pineapple varieties. The poor quality of the road is a real problem for reliably evacuating crop to market and for making a good livelihood as they don't get the best prices from traders/buyers who come here.

Although NGOs have been largely absent here, as discussed above, a community-based organization from Aburi (a farmer co-op? it wasn't clear) recently launched an 82 hectare teak/citronella plantation just outside of town, along the road to Pokrom and Nsawam. Not many villagers are directly involved in this, however.

Pokrom is the largest of the four villages, about 4500 people. It's really much more like a town. It has had electricity since 2000 but still lacks piped water and the road is in poor shape, with longstanding promises to

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fix it that have some residents frustrated. They got a health clinic since 2004. But they say economic conditions here have worsened since 2004, mainly due to the same pineapple marketing shock that hit Oboadaka. There had been people moving to this community in the early pineapple years. But when the Smooth Cayenne variety market collapsed, many of the in-migrants left. There's otherwise not much outmigration from here; as with Oboadaka, they say they're too poor to afford the education needed to land a good job in the cities.

This was the largest gathering; I counted 34 men and 4 women in attendance (although I may have been off by a couple). Cell phones went off regularly during the meeting, an interesting indication of how widespread ownership and use of these has become here. The reception was less warm than in the other three villages. I couldn't assess whether that was simply a matter of scale (of the meeting or of the village/town) or perhaps it had to do with the fact that they were gathering for another event immediately after (an organizational meeting for a possible pineapple marketing cooperative ... a vehicle with a Fair Fruit (?) logo arrived for that meeting).

There has been an effort to try to help a bit with pineapple marketing, a group partly/once funded by German GTZ, called TIPC (sp?) that's an agribusiness support program (someone thought Chemonics or Sigma One have been involved).

The final village we visited was Ashweriase-Daman (Daman for short). It is off the road a bit not too far out of Nsawam. It has electricity (S9cine 1996) and the government put in a new teachers' quarters a few years ago. A CBO has worked here on HIV awareness and prevention, but that's about it for outside interventions. Daman is home to about 3000 people now. They have had some in-migration into the area as people have come to take up tomato farming in the past few years (see below).

There was some question as to whether Jackie's 2004 resurvey indeed covered all the 1997-98 households here. It seems that this is also a GLSS village and that they were confusing the GLSS sample (which came from only one part of the village) with the Akwapim South study. But Tom, Robert and the enumerators will need to verify this – and we'll need to check with Jackie – when they come back to do the sampling frame.

They also expressed particular interest in seeing the soil sample results from Chris Udry and Markus Goldstein's study. See if we can track these down (although they're now so dated that they're likely of little value).

They have been promised a health clinic for a decade or more and are a bit

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frustrated that this still hasn't materialized.

There have been some private schools emerging in the area in recent years, so someone is clearly earning enough to start paying more to send their kids to school (or is this a statement of quality of state schools???). There were also a good number of television antennae in the village, which struck me superficially as (with Konkonuru) the best off of the four. They did suffer a significant maize crop loss in October/November 2007 due to heavy rains and high winds, and a few houses suffered serious storm damage then as well. The plantain and papaya (tree fruits) crop also suffered from the high winds.

Tomatoes are now the cornerstone of their livelihoods. A decade ago, this was a village based on maize, cassava and oil palm. Then they switched over to pineapple around 2000. But when the same variety-specific pineapple marketing problem hit them that hit Obaodaka and Pokrom, they abandoned pineapple for tomatoes (and to a lesser extent, papaya), which they had begun cultivating at smaller scale a couple of years earlier. Tomatoes are high risk and high return. They do not have irrigation and thus when the rains are poor, the crop is poor; but when rains are good, they do very well indeed from the tomatoes. If they could get reliable water control, tomatoes would be extremely lucrative, it seems (i.e., if they could mitigate the weather risk ex ante rather than just cope with it ex post). As an aside, they indicated that they would welcome some technical assistance on tomato production and post-harvest processing. (Note to Chris: check with Jeff Gordon and others at Cornell on the west African tomato work and see if there's anything/anyone we might get to help out at Daman.) One of the interesting features of this switch was that the Daman farmers dropped the contract farming arrangements they had with the pineapple exporters in favor of spot market sales of tomatoes to traders. The market risk is greater in pineapple, in their experience.

As an amusing aside, this was the one community where a chief (actually, a sub-chief, it seemed) was present, not just his representative. It was also the only place where we actually had to open and drink from the bottles of Schnapps (gin) we brought as a customary gift of respect and appreciation. Good thing there were chiefs present in all four villages, else we might have been a bit wobbly by the end!!!

9 January: 9:00 AM meeting with Dr. Karl Harmsen, Director of the United Nations University – Institute for Natural Resources in Africa (UNU-INRA). We had a lengthy and very enjoyable discussion of a range of issues concerning natural resources management and poverty and hunger reduction in sub-Saharan Africa. UNU is keen to hold an experts symposium on this topic to help inform the UN General Assembly as it

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takes stock of progress towards the Millennium Development Goals. Karl has invited me to co-direct that event. We need to follow up by preparing some draft materials for the UNU, which we will try to accomplish in the coming couple of weeks. Following that meeting, I checked in with ISSER colleagues, did some reading and prepared remarks for the EGN programme the following two days. Robert Osei and I then went into town to meet Awudu Abdulai for lunch at the Country Kitchen restaurant (a nice place worth re-visiting). That was a very enjoyable and productive meeting ranging across a variety of professional subjects. After dropping Awudu at his hotel, Robert and I made our way back to Legon. I then worked a bit on this trip report, took care of some logistical issues, checked email, and did some work on a manuscript in the evening.

10-11 January: 5:45 AM departure for Cape Coast for the Economy of Ghana Network Young Economists Outreach Programme. The program is attached as Appendix 2. The point of this two day event is to engage young Ghanaian economists (junior faculty at the universities, younger post-doctoral and MS research staff at the Central Bank and key Ministries and research institutes) in discussing issues, theories, methods and evidence relevant to their professional development with internationally recognized senior economists. The aim is to promote networking and capacity development among young economic researchers in Ghana, who might in turn be better able to conduct economic research and to mentor and teach students in the three Universities in Ghana (University of Cape Coast, University of Ghana in Legon/Accra, and University of Development Studies in Tamale). The event brought 9 senior economists from the North (Elizabeth Asiedu from the University of Kansas, Ravi Kanbur and me from Cornell, Chris Udry from Yale, Robert Bates and Alan Hill from Harvard, Yaw Nyarko from NYU, Andy McKay from Sussex-IDS, Gobind Nankani from the Global Development Network) and three senior economists resident in Ghana (Ernest Aryeetey of ISSER, Abena Odura of the University of Ghana and Nii Kwaku Sowa of the State Economic Commission) together with about 65 young economists and graduate students in Ghana to discuss a selection of leading current papers in development economics, current research by some of the junior researchers, and research opportunities for young Ghanaian economists. It was opened by the Dean of the University of Cape Coast and the Deputy Regional Minister, the MP from the local constituency. The event was extremely successful. The presentations were of generally high quality, participation was active and substantive by the Ghanaians as well as the visiting scholars, and there was a very good spirit about the whole event. The young Ghanaian economists I spoke with were very enthusiastic about the program and keen to repeat the exercise. On Friday evening, I had dinner at the Prospect Hotel in Cape Coast with Sr. Liz Burns, an 84 year old Sister of Mercy and a Ph.D. neurophysiologist (formerly on faculty at

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Univ. of Illinois, Iowa State and Ohio State) who taught 1993-2000 at the University of Cape Coast and now coordinates a variety of activities for the Catholic Archdiocese of Cape Coast, including a new maternal and child health center and a fistula hospital. We had a brief discussion with the Cardinal (Archbishop) and the Cardinal's secretary, a young (and very sharp) Ghanaian priest named Fr. Ignatius joined us for dinner.

12 January: Sr. Liz and her driver (Joseph) picked Tom and me up at the hotel at 8 AM and took us to see the new Maternal and Child Health Centre and Fistula Hospital at Mankessim, about a quarter of the way back from Cape Coast to Accra. It is an impressive twin facility, with the maternal and child health center including an outpatient facility and a obstetrics ward with about 70 beds, as well as a laundry, a kitchen, an administrative block, a large water tower and underground storage tank, septic field, two generators and an incinerator (for biomedical waste). I agreed to track down and send them a cap for the incinerator chimney so that heavy rains wouldn't extinguish the fire and create problems for them. A couple hundred meters away, up a hill, divided by a grove of cassava and coconut palm planted by locals on the Diocesan land, is the Fistula Hospital. It is ready to go. It's an impressive place, with a laboratory, pharmacy, waiting area, a preparatory house (where they will get patients into condition for surgery ... especially addressing anemia that is so widespread among local rural women), a surgical theatre that will be dedicated to fistula repair, and a post-surgical recovery ward with 44 beds. This facility likewise has electricity, a large water tank (based on rainwater harvesting), etc. It's impressive. The Cardinal will commission the two facilities in late February or early March and they will then begin operation. They aim to bring down the extraordinarily high maternal mortality (in birth) rate as well as prevent and repair fistulas that leave women social outcasts in their villages. It was very inspiring.

From my experiences elsewhere, it seems that fistula has a huge effect on women. They become socially ostracized, often abandoned by their husbands and banished from their villages. Because they smell, they're readily identified as fistula victims even by those elsewhere, thus the social stigma and ostracization carries into other villages; there's no information asymmetry the woman can avoid through migration. Only repair of the fistula can fix the problem and potentially allow her to reenter society. But repairs are unavailable without proper medical care, especially for poor, malnourished women who are likely anemic and might not survive the surgery without proper pre-surgical nutrition and careful surgical care. Thus an intervention like this one can potentially reverse a catastrophic negative idiosyncratic shock that is most likely experienced by poor women (i.e., those without medical care during birth) and that has follow-on adverse effects on a woman's social networks and

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well-being.

After visiting the Mankessim facilities, we drove back to Accra, stopping for a brief lunch together in East Legon. The remainder of the afternoon was spent on reading, writing and a bit of shopping for my kids.

13 January: Tom and I spent much of the morning discussing models of social networks and the upcoming data collection. We ventured over to East Legon to the Erata Hotel for a very nice lunch. (The Erata is worth considering for future visits ... very clean and modern, just across the street from the University's east gate, a fine restaurant, and comparable price to the Villa Victoria, with a pool, internet, etc. It is much larger than the Villa Victoria and has meetings facilities.) I spent the rest of the day and evening working on a student's dissertation draft and another manuscript.

14 January: Tom and I met with John Mullenax of USAID/Ghana first thing in the morning. He is the CTO for the Trade and Investment Program for a Competitive Export Economy (TIPCEE), which is led by Chemonics, in collaboration with CARE and Technoserve, as well as Ghanaian partners, and focuses on farmer cooperative organization to meet EUREGAP standards and facilitate export horticulture. The Nsawam area is one of the core areas for TIPCEE, thus we should try to get ahold of their reports and make contact with them about grower behavior and welfare, as well as learning dynamics. We discussed the collapse of the market for smooth cayenne variety pineapple earlier this decade (2004 seems to be the target year ... verify this), which the villagers had complained of. John explained that this originated with European buyers who decided their markets favored the MD2 variety and thus they stopped buying smooth cayenne. EureGAP certification standards include many requirements that are difficult for small producers to meet. Often a farmer cooperative handles certification with the local EureGAP auditors, typically requiring a nucleus farmer or two to keep careful records and monitor outgrowers who do not keep the same level of records themselves. Some of the varietal changes for pineapple and papaya (to Solo and Golden varieties) have been driven by consumer refrigerator sizes, some by processing needs (looking for more cylindrical than spherical shapes to reduce loss in mechanical processing for juice and canning). It will be interesting to take a look at the extent to which certification and related standards impede entry into export horticulture for these farmers.

We also asked about admin and logistics for Tom's period here in Ghana. John advised that we write the USAID Mission Executive Officer (Margaret Healey?) to inform her that Tom will be coming here and get

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him onto their lists of USAID-supported personnel in country. There are also informal internal networks for circulating notices that he'll be looking for lodging, a secondhand vehicle, etc. Use those next fall.

After a couple of hours back at the Villa Victoria to check email, update the trip report and do some reading, we had a noon meeting with Ernest and Robert at ISSER. Ernest gave me the signed subcontract amendment to hand deliver to Cornell's OSP. We talked through a few admin/logistical items and visited the office space Tom would most likely occupy next year, as well as the ISSER publications unit. Tom and I dropped by to visit briefly with Dr. Peter Quartey as well, and with Dr. Karl Harmsen of UNU/INRA.

At lunch time I met with Kwadwo Koram, a Ghanaian prospective M.S. student in Natural Resources at Cornell. He did a BS in Natural Resources Management at Kwame Nkrumah University of Science and Technology in Kumasi and now owns and runs a residential construction firm in Accra and Kumasi. But he's starting an MBA on project management at the University of Ghana (Legon) next month and would like to transition to NGO work on rural development and water quality, focusing on nonpoint source river pollution in smallholder farming areas. We discussed US programs and funding options. Seems a very bright and capable fellow.

The latter part of the afternoon was spent back at Villa Victoria wrapping up last details. It was a productive visit.

15 January: Transit from Accra to New York (JFK) then to Syracuse, where my wife picked me up for the final drive home.

Additional notes provided by Tom Walker on meetings after I left Ghana:

16 January: Lunch with Cecilia Aryeetey and Robert Osei of ISSER, followed by a two hour meeting with TIPCEE, the USAID-supported horticultural export project.

Attendees: Mr. Rick **Ody**, Chief of Party, Ms. Reiko **Enomoto**, EurepGAP Specialist, USAID, M. Jean Michel **Voisard**, Export Business Development Director

I visited the TIPCEE headquarters in Dzorwulu after contacting Mr Ody by phone. I met first with Mr Ody and Ms Enomoto, and then with M. Voisard. The following summarises the new findings from our discussions.

Pineapple Farming

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Pineapple farmers very rarely operate alone. The high up-front costs of investment mean that the most common practice is for farmers to be ‘sponsored’ by someone with money, usually a rich relative in Accra or overseas. Such sponsors may engage the services of a number of households in the village. They put up the investment capital and take a share of the profits (with terms varying widely). The farmers act as managers and bear the income risk, but of course do not suffer the loss of capital if the investment fails. If there are farmers who produce individually, they are generally quite wealthy, or have good access to capital. There are a few women, but growers are overwhelmingly male. The Akwapim District is ‘traditional pineapple territory’.

Exporting is done solely through exporting firms. Farmers may join in the export business through word-of-mouth, or by invitation from the exporter. It is usual for farmers in an area to form small cooperative groups to pool their product prior to purchase by the exporter. Thus they sell into a pool which the exporter then taps. (Blue Skies has one of the more developed smallholder programs; Prudent Farms is active in Akwapim.) This disconnect between the farmer and the market means that there are significant information asymmetries: farmers are “not clued-in” to developments in global markets (more on this below). Exporters also care somewhat about the long-term relationship with their farmers, and provide credit on future shipments, but nevertheless there’s typically a lag on payment (sometimes of a few months) since European buyers pay on delivery. If the export market fails, producers can sell on the local market, but at a significant discount. Until recently, contracts with exporters were verbal and farmers are only now starting to write legal contracts (even though these are usually not well-enforced either because of the weak legal system). Mr Ody said that Ghanaians are “a very suspicious culture” that feel obligation to help others but are always afraid of being tricked. Nevertheless, they are not used to legal contracts and TIPCEE is working to change that.

EurepGAP and GlobalGAP

The EurepGAP / GlobalGAP certification process was introduced by a group of supermarkets looking to standardise the quality and production conditions of many types of agricultural produce. It was phased in between 2002 and 2004. The certification process is comprehensive, covering everything from usage and storage of pesticides through to the quality of the product. The standard is very complex: 50 pages long, and written in agricultural terminology. Even good English speakers would have difficulty understanding and complying with the 249 requirements. Furthermore, the standard changes every 3 years. Exporters were introduced to the standard in 2002 and it was made optional in 2003 for

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practice. In 2004 it became mandatory. Despite the slow lead-in time, some producers were caught out and lost their export contracts in 2004 due to non-compliance.

There are two 'options' in the GlobalGAP process: under Option 1, farmers obtain certification individually, and each is audited annually. (In Ghana, auditing is contracted by USAID; the current contractor is a Kenyan firm.) Under Option 2, an exporter creates a 'smallholder entity' (a group of small producers) which is jointly certified, and farmers in the group are audited randomly. (If something falls below standard there is a period to rectify the problem, after which the certificate is withdrawn.) TIPCEE prefers Option 2. It is illegal for exporters to sell the produce of many farms under their own certificate, rather, they must certify a cooperative entity or get separate certificates for each farmer. It has been known for an individual batch from one farmer to be rejected at the European docks because of non-compliance. Some groups and most exporters actually hire consultants to manage the compliance process. GlobalGAP is not mandatory for all exports; indeed, some importers in Europe (e.g., Indian supermarkets) until recently didn't mind importing non-certified goods. And Eastern Europe used to be less concerned with quality. But this is now changing, since quarantine authorities notice the certification and apply less stringent inspections on certified shipments. This means little or no quarantine period and less import costs. And of course consumers are demanding higher standards too. Further details and the full documentation can be found at www.globalgap.org.

TIPCEE is engaged in a 5-year, USAID-funded program to train smallholder groups in Ghana in farming practices consistent with the GlobalGAP certification requirements, and in documentation management required by the standard. The program started 3 years ago, and covers 65 districts and 11 crops. TIPCEE also trains farmers on cheap ways to comply with the rules, e.g., using an old oil drum as a storage cabinet, rather than buying or building a compliant storage facility. Ms Enomoto is responsible for the preparation of training materials and the training of representatives - extension officers or group members - in each smallholder group. These representatives then use the materials (which are available in all languages) to train their own group members. I have copies of the training documents, which are pictorial with short instructions. The standard is extremely high; proper protective clothing and masks to be used during spraying, specific rules about storage of chemicals, etc. Adhering to the standards requires at least one member of the group to have a high level of literacy and numeracy: to read and comprehend the standard, and keep good records of the group's activities and compliance. Ms Enomoto said that since most groups grow from individuals who previously had to comply with the standards individually, it is common for

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everyone in the group to have these abilities. Group sizes range from 8 to 25, and there are also cooperatives with up to 1400 members. Since the groups of farmers often share resources and rely on each other for compliance, a high degree of trust among group members is essential. However, some groups have arisen solely in response to a government program providing aid to groups, and TIPCEE is sceptical of their long-term viability.

Varietal Shift

By way of background, Smooth Cayenne is the mainstay traditional variety of pineapple. It's extremely reliable and easy to grow, and farmers in Ghana love it for that reason. Indeed, M. Voisard said that some farmers abandoned pineapple altogether when the market for Smooth Cayenne dried up, because they couldn't imagine growing anything else. MD2 was developed by Del Monte in the US in 1996, and started being grown in Ghana around 2002. It is sweeter and more consistent in shape and colour, and is therefore more desirable by image-conscious consumers. However, Smooth Cayenne is juicier and is still preferred for juicing and canning purposes. (A third variety, sugarloaf, which it seems is what we've seen at the roadside stalls, is substantially less desirable and not exported at all.) More details can be found at http://www.ciat.cgiar.org/ipgri/fruits_from_americas/frutales/more%20about%20pineapple.htm.

The shift in demand from Smooth Cayenne to MD2 was seen coming by those in the know 3-4 years before it happened. Prices for Smooth Cayenne had been steadily falling, and TIPCEE was warning Ghanaian exporters that they had better switch. (Technoserve was doing information sessions on MD2 production in 2002.) But most of the exporters laughed at the advice and ignored it. The dive in demand for Smooth Cayenne did however occur suddenly, around 2004, and only large producers had adopted MD2 by that time. But farmers kept growing Smooth Cayenne (because of the lead time) and either threw it away, abandoned their crops, or in some cases even shipped it and didn't get paid. Some exporters - even where supported by development organisations - have also mismanaged funds, contributing to the losses felt by farmers.

MD2 requires more pesticide, fertilizer and (labor-intensive) mounding, and better cold-chain management because of faster spoilage. Because of this greater upfront cost, and since the MD2 suckers were not widely available in 2004, smallholders didn't have access to MD2 until the World Bank began nursery programs in 2005-06 under the Horticultural Export Industry Initiative 2005, part of the Agricultural Services Subsector Program. (The program is ongoing. I was given a current GIS map of the

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new and established MD2 nurseries in southern Ghana, complete with contact names and phone numbers; 5 or 6 are located in Oboadaka. And M. Voisard is going to email me the WB documents/reports on the pgm.) But I was told that the mounding and greater fertilisation required by MD2 are also preferable for Smooth Cayenne, and in fact demand for Smooth Cayenne farmed in this way is slowly coming back. So part of the explanation for the abandonment of pineapple farming is the greater cost of MD2, but some farmers undoubtedly balked at the shift simply because it was beyond their expertise. USAID is now also supporting the development of Ghanaian pineapple processing facilities to turn the Smooth Cayenne product into juice and canned food for export.

Tomatoes are not new, and Ms Enomoto thought the shift to tomatoes was probably being overstated by the people in Daman. Tomatoes can generate profit yields as high as pineapple (100% over investment costs) if farmed properly, with irrigation, fertiliser and staking. But typically returns are in the 20-40% range. TIPCEE is trying to train farmers to grow them in a more high-yielding manner. There is no export market in Europe for tomatoes, and in fact Ghana is occasionally a net importer (from Burkina).

Other comments

M. Voisard was keen to know about our research because TIPCEE deals at a higher level and is not really in touch with what farmers are doing. He is going to put me in touch with Emmanuel Owusu, at TIPCEE, who is an expert on the varietal shift.

Ms Enomoto has had experience with pineapple farming and it is really labour intensive work, requiring heavy lifting. She thinks this could be a disincentive to women participating.

TIPCEE people seemed a bit sceptical about the wisdom of our research objectives, and of academic research in general. They had no research publications to offer us. But they have a lot of grassroots experience and seemed very welcoming and interested to chat. So it's a contact that's worth fostering, and they'd be worth another visit at some stage.

They knew about only one NGO working in the Akwapim South district: West African Fair Fruit, run by CARE.

I was also introduced to Dr Susan Hester, who used to be on faculty in Nutritional Sciences at Cornell.

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Appendix 1: Tom Walker's Notes on the Akwapim South Villages

Field Notes - Tuesday 8 January 2008

We went to all four villages today: Konkonuru, Oboadaka, Pokrom and Daman. Overall observations are that houses are small and the land is severely degraded. Roads which are not sealed are rutted and eroding fast. There is quite a lot of road and drainage construction. Electricity is common but piped water is not.

Konkonuru

This is a village with about 3000 people, right at the top of the Akwapim hills. The village is only about 1km off a new, main road leading up into the hills from Accra. There has been some in-migration. The building of the road finished only 6 months ago and has brought considerable business and investment to the village. A new road extending out the other side of the village has been built privately by a food chain called Papaye, which is building a sort of park and resort complex at the top of the hill above Konkonuru. The reserve is very large, surrounded by a new castellated wall and currently home to some plantations of oranges and palm (not sure whether this belongs to Konkonuru though). The village itself consists of two streets intersecting at a T, and dirt- and concrete-walled huts with tin roofs. The fields seem to be behind the village to the north and west. We were seated on the chief's modest verandah for the meeting, though the chief did not attend. There were 5 men and 1 woman present: two teachers, two elders, a woman I didn't find out about and an assemblyman. Another man turned up late; he might be the chief's son. I photographed the meeting.

The villagers seemed nonchalant about the survey, although they wanted to know how many people would be surveyed, and for how long. They mentioned no significant events since the last round, though the building of the road has brought considerably more business and higher prices. Some locals commute to Accra. They do not farm pineapple in Konkonuru. The local school is a methodist-run primary school which was originally run by the state and is now run by the Rita (and Bob) Marley Foundation, which is a prominent supporter of projects in the area (including a clinic? and recording studio). There were no other NGOs. The village has electricity but I don't think running water. I talked to the contact ?Orsi, who is a teacher, at the end and he said they mostly needed exercise books and English language story books.

Oboadaka

This village is on a very long dirt road, which winds down the hills for a long way from the aforementioned sealed road; you turn off at the village leading to Aburi gardens. The village itself is at the turn-off to Pokrom and Daman. It is actually 3 small villages, totalling 750-900 households. They are significantly poorer than the Konkonuruans, as the houses are mainly mud huts, and the roads and soil in the village are badly eroded. Loose dirt was blowing around a lot during the interview. Around 16-18 people attended,

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representing the 3 villages. We sat outside the village clinic, which has just been built but is not yet operating. As we talked a few trucks went by, one laden with pineapple.

Alex the assemblyman presided. The villagers were a bit concerned that we had not provided feedback on past rounds, and wanted to know what was in it for them. The village has been suffering declining economic conditions of late. There was a drop-off in demand for the type of pineapple they were growing around 2004 (Smooth Cayenne), and they switched to another variety (MD2), but it is more costly to produce because it requires mounds of soil to be prepared to keep moisture in, and this requires more labour. This has reduced profits, and seems to have been accompanied by no price increase and average weather conditions. No droughts, pests, disease or fires were reported however.

There has been no in-migration, just natural population growth. They wanted to know whether we would fund a road to the village, since the difficult transport situation was deterring business for their pineapple and other crops. Robert mentioned that the village is a potential target for MCA money, so something may be done about it. They also complained about the lack of electricity, which necessitated using kero lamps. Each household has only one, so when the kids are studying by it in the main room of the house nothing else can be done. They are starved of fuel for the lights too. I suggested to Alex that we might get wind-up torches for every family, and Chris seemed keen to pursue the idea. One person in a neighbouring village burnt himself to death in an accident with a kero lamp, and it clearly worries them. Even the clinic has no electricity.

I spoke afterwards to a few of the villagers, particularly Alex the assemblyman. They are keen to get copies of the photos I took, and to perhaps see pics of Australia and the US. They wanted phone nos and addresses and were adamant we contact them. They seem very keen to see us again.

Pokrom

This village is on a sealed road between Oboadaka and Nsawam, the main town in the area. They have similar houses to Oboadaka, but seem slightly better off. We met in the chief's palace, although the chief was not present. There were about 40 people there, quite a rabble. A few were very annoyed about the lack of feedback from anyone about the survey. It turns out Chris and Markus never reported to them either. They have had electricity since 2000, but still don't have water. The construction of the road is ongoing, but has been delayed.

Economic conditions have worsened because of the pineapple transition, as in Oboadaka. There is a German agency called TIPC which is active in trade and export sector support (pineapple) for farmers. They were visiting at the same time as us. But there has been no significant drought, flood, famine since 2004. In the last two years the population count was 4500, up 30 per cent since 2003, about 1750 adults. There has actually been net out migration since 2003, as the people who migrated in to farm Smooth Cayenne are moving away because of the lower profits from MD2.

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Daman

This is a village pretty close to Nsawam. It's down a dirt road, and the centre of the village is set quite a way off the road. It was also pretty poor, but the people seemed more upbeat than those in Oboadaka and Pokrom. They have TVs and electricity. We met in someone's house, which I think is where the enumerators stayed when they were interviewing there. The chief (or at least regent) was present, the only one we saw during our visits. There were about 10 others, including 1 woman. The main contact (who might own the house) was called Train Driver (Richard) and was actually a steam train driver from 1952 to 1992, 40 years.

There was similar outrage about the lack of feedback, and also people were promised a clinic which never came, and wanted to know whether we would give them one. They also got confused and thought we were from GLSS, who did a survey of part of the town in 2005 but not all of it. Finally they wanted to know the results of soil samples taken in 1997. (Daman 1) They also wanted to know how we can help farmers who are having trouble with drought and don't have irrigation. (Daman 2) They are not MCA beneficiaries.

Things seem to have gone better for these guys, but not great. The same pineapple crop shift led them to abandon pineapple completely and start growing tomatoes. Part of the problem seems to have been that the exporters weren't paying them for the crops. However they do not irrigate so there is a lot of rainfall-related risk. Ten years ago they grew oil palms and oranges, then they moved to cassava and plantain, then pineapple, and now pawpaw and tomatoes. They started seriously into tomatoes six years ago. Tomatoes sell through small traders, and are shipped to Accra, Takoradi, Kumasi etc.

Population is 3000-3500, which has increased significantly. There has been net immigration in recent years, as some people come to commute to Accra, and others to grow tomatoes from Agogo (2hrs away in Kumasi area, where tomatoes are in decline bc of drought). (It might be interesting to see how these people fare in the network stakes considering they are new to town.) They have benefited from new teachers' quarters since 2004, and electricity, but no water as yet although the govt has promised it. Further, quite a lot of private schools have opened in the area. There are no NGOs except one with a program on HIV. One shock which happened late last year (Oct-Nov) was excessive rainfall which destroyed a lot of crops (particularly plantain, corn and cassava) and took roofs off some houses.

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Appendix 2:

Program for Economy of Ghana Network Young Economists Outreach Programme

INSTITUTE OF STATISTICAL, SOCIAL AND ECONOMIC RESEARCH
(ISSER)

CORNELL UNIVERSITY AND
ECONOMY OF GHANA NETWORK (EGN)

YOUNG ECONOMISTS OUTREACH PROGRAMME

Program for Opening Session: 10th January 2008

9.00:	Seating of Invited Guests and Participants	
9.30:	Welcome Address and Introduction of Chairman	Prof. Ernest Aryeetey Director, ISSER
	Chairman's Opening Remarks	Prof. E. Addow-Obeng Vice Chancellor University of Cape Coast
	Remarks from Co-organizers	Prof. Ravi Kanbur Cornell University
	Opening Statement	Hon. Nana Ato Arthur Regional Minister Central Region
10.00:	Chairman's Closing Remarks	
10.20:	Vote of Thanks	Mrs Ama Pokuaa Fenny (ISSER)
10.30 – 11.00		Coffee Break

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Session 1: 11.00 – 13.00 Individual Meetings with Young Economists (Parallel Sessions)

Meetings with	Ernest Aryeetey--ISSER, Legon Elizabeth Asiedu--University of Kansas Christopher Barrett--Cornell University Robert Bates--Harvard University Ravi Kanbur--Cornell University Andrew McKay--University of Sussex Gobind Nankani--President, Global Development Network Yaw Nyarko--New York University Abena Oduro-Dept. of Economics, Legon Nii Kwaku Sowa--Director General, SEC, Ghana Chris Udry - Yale University

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	13.00 - 14.00 LUNCH
	Session 2: 14.00 – 16.00 Young Economists Research Presentations I (Micro) Chair: Chris Barrett
Presenters	William Baah-Boateng: “Gender Discrimination in the Ghanaian Labour Market” Ebo Turkson: “Firm Growth Dynamics: Evidence from Ghana’s Manufacturing Sector” Seidu Alhassan: “Effectiveness and Sustainability of Ghana's Capitation Grant”.
	16.00-16.30 Break
	Session 3: 16.30 – 18.00: Presentations of Papers in the Literature I (Micro) Chair: Chris Udry
Presenters	Yaw Nyarko: “Human Capital and Technology Diffusion, by Jess Benhabib and Mark Spiegel.” Andy McKay: “Assessing the Economic Impact of HIV/AIDS on Nigerian Households: A Propensity Score Matching Approach, by David Canning, Ajay Mahal, Kunle Odumosu and Prosper Okonkwo.”
	CLOSING: Dinner at 19:00

Programme for 11th January 2008

	Session 4: 9.00 – 10.30 The CPIA and Ghana
	Chair: Robert Bates
Presenters	Ernest Aryeetey Ravi Kanbur Gobind Nankani Nii Kwaku Sowa

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	10.30 – 11.00 Break
	Session 5: 11.00 – 13.00 Young Economists Research Presentations II (Macro) Chair: K.N. Afful
Presenters	Charles Ackah: “For Richer or Poorer: Trade Policy and Growth in Developing Countries” Komla Dzigbede: “Interest Rate Dynamics, Inflation Expectations and Output Growth in Five Emerging Economies” Johnson Asiama: TBC
	13.00 – 14.00 LUNCH
	Session 6: 14.00 – 15.30 Presentations of Papers in the Literature II (Macro) Chair: Vijay Bhasin
Presenter	Elizabeth Asiedu: “Aid and Growth: What Does the Cross-Country Evidence Really Show? By Raghuram Rajan and Arvind Subramanian. Nii Kwaku Sowa: “Central Bank Independence and Macroeconomic Performance: A Survey of the Evidence”, by Friedrich Kisser and Helmut Wagner.”
	Break 15.30-16.00
	Session 7: 16.00 – 17.30 Concluding Panel: Topics for Interesting, Important and Doable Research Chair: Ernest Aryeetey
Presenters	Christopher Barrett Robert Bates Abena Oduro Christopher Udry
	CLOSING: Reception at 18.00