

Appendix 18. Annotated Bibliography

1. Agricultural Initiative to End Hunger in Africa (AICHA). World Summit for Sustainable Development (WSSD) Event Highlights. Johannesburg, South Africa, 29 August 2002. The report clearly lays out the United States' financial commitments to boost agricultural production and trade in Africa. The investments will focus on harnessing science and technology and unleashing the power of market forces to increase smallholder agricultural productivity. The Initiative envisions strengthened bilateral partnerships with governments, NGOs, and private sector partners in Mali, Mozambique, and Uganda. In addition, three regional programs in West, East and Southern Africa working with regional trade and science organizations will serve as the basis for developing initiative platforms, around which other science/technology and market and trade actions can be organized. While ambitious, the initiative is timely in focusing on and tackling a strategic challenge that Africa and its partners must deal with to improve conditions (economic, social, environmental and conflict) of current and future generations. The approach proposed to establish regional platforms, begin efforts in a few countries, and focus on priority themes and interventions in a constructive and useful manner. The focus on and integration of efforts to harness science and technology and make markets work for smallholder farmers in the region, is long overdue. The initiative acknowledges the importance of partnerships for the success of the initiative. The U.S. government needs to engage the international development community, donor organizations, and private sector groups in tackling the problem of hunger. On the other hand, African governments need to be active players in the coordination among partners to mobilize resources from the development community; as well as to shape, focus and implement action plans.
2. Delgado, Christopher L., Jane Hopkins and Valerie A. Kelly. (1998) "Agricultural growth linkages in Sub-Saharan Africa." International Food Policy Research Institute (IFPRI). Research Report 107. Delgado et al. examine the literature on agriculture growth linkages in Africa to help prepare an analysis of the farm and non-farm goods and services that rural Africans purchase and the implications of these purchases for rural economic growth in five countries (including Zambia and Zimbabwe in Southern Africa). Goods are classified as tradables or non-tradables and by geographic zones of interest. Food was found, not surprisingly, to be the major item in household expenditures. The majority of food purchased

was in the non-tradable category. This is important since early studies in Asia had categorized all food purchased as tradables (i.e., purchases that decrease the amount available for export out of the region). A more “Africa-realistic” definition of food as largely a non-tradable (i.e., not traded outside the local area of production) has important implications for agriculture-growth links and multipliers since the marginal budget share of local household expenditures on non-tradables as a group “...is the single most important determinant of the magnitude of estimated growth multipliers.” The study finds that the farm sector in Africa is better able to propagate income growth than had been surmised earlier. Household income growth is spent largely on perishable foods, local services and locally-produced non-farm goods. In Zambia, adding \$1.00 of new farm income generates an additional \$1.48 in income—largely in the local area. This is an upper boundary result. The actual multiplier is likely to be some 30 percent less, but nonetheless a substantial positive income effect.

3. de Waal, A., and Tumushabe, J. (2003). “HIV/AIDS and food security in Africa.” de Waal and Tumushabe address two major issues: 1) the impact of HIV/AIDS on agrarian livelihoods and how it can be mitigated and 2) the implications of the HIV/AIDS epidemic and regional food insecurity occurring simultaneously. This paper on AIDS and food security takes a more dire view of the situation than many, calling it the “new variant famine” that must be researched and understood as the basis for policy and practical responses. How and why the HIV/AIDS epidemic is disproportionately affecting agriculture and particularly the small-holder subsector is reviewed extensively in terms of the range of negative effects on rural livelihoods, communities, and social services, and the failure of coping strategies. “Success stories” about mitigation strategies, mainly from Uganda, are provided as potential models for the region. The potential program responses to mitigate the impacts of HIV/AIDS that are discussed include micro-credit for AIDS-affected households, addressing the loss of labor AIDS causes, the potential role of agricultural extension and research, and integrating HIV/AIDS education and prevention into mitigation. The paper concludes with a mainly conjectural section on the effects of southern Africa’s concurrent HIV/AIDS epidemic and food crisis. The interaction between HIV and malnutrition, necessary responses to the situation such as methodological revisions in the early warning systems, and emergency food relief are covered.
4. Diskin, Patrick. (1995) “Understanding linkages among food availability, access, consumption, and nutrition in Africa: Empirical findings and issues from the literature.” USAID. Bureau for Africa. Office of Sustainable Development. Technical Paper No. 11. Diskin, an economist in Michigan State University’s Department of Agricultural Economics, argues that policymakers are constrained in designing effective food security strategies by a lack of reliable and relevant information concerning the causes of food insecurity and their linkages to nutritional status which leads to designing policies as “...an exercise in planning without facts...” . He cites several examples of well-meaning, but flawed, policies leading to unintended consequences. For example Zimbabwean maize pricing and marketing policies of the early 1990s actually increased food availability while at the same time reducing access by reducing the purchasing power of many poor households. In 1980s Kenya the source, periodicity, and control of income was probably more important to household food security than was the amount of income. His conclusion is that simplistic notions about the food availability-nutrition pathway

need to be replaced with appropriately disaggregated empirical information, carefully identifying the nature, extent and causality among food and nutrition security variables to better understand the primary factors limiting food access, consumption, and nutrition. Too much food security data is being collected for unspecified reasons and without knowing reliability. Too many indicators are ambiguous with respect to *causes* of changes in the level of the indicator. They thus deliver information which is, in effect un-actionable. Another problem limiting the usefulness of some research results. Weight/height measures and nutritional status may be correlated, they are not conceptually equivalent—a point that seems obvious, but one often overlooked on practice.

5. Duncan, Alex. (1999) "The food security challenge for Southern Africa." *Food Policy* 23 pp. 459-475. The aim of the paper is to consider what governments should be trying to do to improve food security in Southern Africa and how they should do it. Food security aims and instruments in Southern Africa are considered against a background of changed international and regional circumstances. These include: i) enhanced focus on macro-economic stabilization, ii) a decline in funding for agriculture; iii) a reduction in government involvement in commercial activities; iv) movements toward greater integration in world markets; v) efforts in Southern Africa to move toward greater cooperation and trade within a reduction, in the region, in conflict and inward-looking economies. The author suggests the main roles for governments in the region in promoting food security are: i) creating enabling environments for development; ii) correcting for market failures, and iii) targeted measures to achieve social objectives. More specifically in rural areas, governments need to: i) support household strategies aimed at raising and stabilizing incomes through diversification, ii) intensification of farming, and iii) support migration. The major areas of public emphasis ought to be trade policies and smallholder farming. With regard to the latter "...the challenge for governments...is to define with greater rigor than in the past the priority uses for public funds, and, second, to find much more efficient ways of delivering services than in the past." Foreign aid should be used to support "mainstream development" by: i) assisting in strengthening an appropriate enabling environment for growth; ii) providing funds and technical assistance to enable smallholder services to be provided in ways that compensate for market failures while complementing private sector endeavors; and iii) assign in the design of cost-effective social programs in health, education and safety nets.
6. Edwards, N., Tokar, M. and Maxwell, J. (1997) "Agribusiness development in sub-Saharan Africa: optimal strategies and structures." Technical Paper No. 83. Abt Associates. The document, "Agribusiness Development in Sub-Saharan Africa: Optimum Strategies and Structures," is the product of a series of country case studies to examine and analyze existing structural arrangements, organizations and operating strategies of micro, small and medium size enterprises (MSMEs) in non-traditional agricultural exports in order to determine optimum structures and strategies. It presents research findings for six countries, Tanzania, Zambia, Mozambique, Ghana, Malawi, and Kenya, as well as conclusions and recommendation to enhance the MSMEs' capacity to start and develop business activities centered on non-traditional agricultural exports (NTAEs). The purpose of this research activity is to broaden and deepen both African policy makers' and USAID Africa Bureau's understanding of the

existing structural arrangements, organizations and operating strategies available to MSMSE entrepreneurs as well as the major operating constraints they face when engaged in the non-traditional export market, and to offer structural and operating strategies for developing and sustaining MSMSE support entities. USAID is increasingly looking to the private sector for new and innovative ways of improving competitiveness, and often to agriculture as the potential catalyst for generating broad-based, sustainable economic growth. The findings and recommendations contained in this report are helpful not only to the Africa Bureau of the USAID, but to the field missions, host country governments, and private sector groups make more informed decisions on the promotion of initiatives on alternative types of support structures and operating strategies as well as insights, ideas, and information for MSME development and marketing efficiency.

7. FAO. (1995) "A synthesis report of the Africa region: women, agriculture, and rural development." This synthesis report provides both macro- and micro-level information on African women and rural development, and includes quantitative examples from three countries in the southern African region (Namibia, Tanzania, Zimbabwe). Information on gender inequality in power-sharing and decision-making in terms of membership in rural/agricultural organizations, government positions, local power structures, and at the farm level is presented. The conclusion, illustrated with examples from nine African countries, is that women's participation at all levels is limited and they often are not represented in higher leadership levels. The governmental ministries/departments responsible for women's affairs in each country are summarized in a table. Rural poverty, increases in the proportion of women-headed households, and the implications for household income and food security are discussed in brief. Inequalities in women's access to and participation in economic structures and productive processes is reviewed in eight areas: land ownership, access to credit, extension services and agricultural training, the gender composition of extension departments, and the gender composition of extension service clients. Examples illustrate women's marginalization in these areas, despite their important role in agriculture. The lack of gendered data on the nature and role of women's contribution to agriculture is discussed, and how it has made women "invisible" to agricultural policies and programs.
8. Gallup, John Luke, Jeffrey Sachs and Andrew D. Mellinger. (1998) "Geography and Economic Growth" Paper prepared for the Annual Bank Conference on Development Economics, Washington DC, April 20-21, 1998. The authors argue that too little account is taken of basic elements of geography as important determinants of economic growth. Their econometric model suggests areas of complex relationship between geography and economic growth, policy choices and institutions. Their paper finds that location and climate have large effects on income levels and income growth through effects on transport costs, disease burdens, and agricultural productivity. There is a disjunction between areas of high economic growth and areas of high population density and high population growth—especially when these latter are far from coastlines or navigable rivers. Much of the population growth projected for the next 30 years will likely occur in these geographically disadvantaged regions. The paper starts from comparative income data suggesting that 1992 African per capita income is approximately on par with average per capita GDP in the Europe of 1820. In addition where

African per capita income of 1970 and that of Asia were roughly comparable, 30 years later, average Asian income had risen more than 2 1/2 times while Africa's remained more or less the same. Does geography contain some of the answers for this difference. Gallup et al., believe it to be so. Their research shows no high income country is found in tropical regions and that coastal economies generally have higher incomes than landlocked economies. Western Europe, northeast Asia and the Eastern and Western seaboard of North America are the core economic zones of the modern world. Looking at only those areas of these countries that lie within 100 km of the coastline—a mere 5 percent of the world's inhabited land area—the study finds they account for 37 percent of the world's GNP. WTO data shows that just 11 countries account for 88 percent of all global exports. Sub-Saharan Africa, the poorest region of the world has 82 percent of its population more than 100 km from the coast and a very high concentration of its landmass in the tropics. The authors argue that geography continues to matter importantly for economic development. This paper should be of considerable interest to those engaged in development planning for Southern Africa.

9. Gillespie, S., Haddad, L., and Jackson, R. (2001). "HIV/AIDS, food and nutrition security: impacts and actions." In *Nutrition and HIV/AIDS*, Nutrition Policy Paper # 20, UNAIDS, ACC/SCN. This paper is a thorough and very useful presentation of the links between HIV/AIDS and food security, and the options for mitigating the disease's negative effects on food and nutrition security. The list of the "dynamics of HIV/AIDS impacts and household responses" is a good resource and quoted in many other papers. The characteristics that make HIV/AIDS a unique shock to the developing world and its gender dimension are summarized. The authors detail the impacts of HIV/AIDS on nutrition, food security, and agrarian livelihoods. The latter includes the disease's negative effects on human, financial, social, physical, and natural capital. A section on "policy and programming principles," based on a literature review and WFP case studies, includes information on mainstreaming HIV/AIDS; the need to integrate prevention and mitigation; using an "HIV lens" for effective programming; targeting AIDS interventions; the need to take HIV/AIDS programs to scale; and monitoring. Specific options for action to mitigate the impacts of HIV/AIDS on food and nutrition security also are discussed. These include nutritional support for AIDS-affected individuals, the need for community-level targeting, and programming principles for food aid for mitigation. Examples of prevention, mitigation, and care-related intervention options that use food aid are given. The paper concludes with a brief discussion of some mitigation options related to agricultural policies and programs.
10. Gladwin, C.H., Thomson, A.M., Peterson, J.S., Anderson, A.S. (2001) "Addressing food security in Africa via multiple livelihood strategies of women farmers." *Food Policy*, 26, 177-207. The theme of this paper is that food insecurity is primarily a problem of low household income and poverty, not just inadequate food production, and that interventions to improve food security should aim to increase women's incomes and help make their livelihoods more sustainable. The assumption that improving food security should be based on helping women farmers in SSA grow more subsistence crops is incorrect. Governments and development projects must seek to improve returns to women's resources in a broader context, including more opportunities for non-farm microenterprises, cash cropping, and agricultural labor. The

link between agricultural production and access to food is strong because agriculture is the basis of most rural households' economic systems. But rural African women have "multiple livelihood strategies" in order to survive and work toward food security, so agriculture may not be the only or the most important source of income. Women work as farmers, petty traders, food processors, and informal labor in order to make ends meet. Having multiple economic irons in the fire is necessary in Africa's problematical economic context, for married women and for women household heads. Development programs must recognize and support women's diverse economic roles and not just focus on increasing their food production. Several factors must be considered in planning interventions to improve food security by increasing women's incomes and making their livelihoods more sustainable. Women farmers may need a long adjustment period to fully diversify their income sources because of their national economic contexts: most African countries are in the early stages of structural transformation from mainly agricultural economies to having developed their other economic sectors. The interventions must be designed to fit the varying assets and household composition of the women targeted; they cannot be generic. Women are not a homogeneous group: for example, the control of money that comes into the household will differ depending on the sex of the household head, and older women are more likely to have labor and cash available than younger women. Cultural factors such as women's tendency to define themselves by their social roles as household food-producers also will affect their adoption of new economic activities. A four-pronged sustainable strategy is recommended: 1) encourage women's income-generating activities and multiple livelihood strategies; 2) complement the foregoing with agricultural research programs aimed at increasing women's returns to their land; 3) recognize that rural women are not a homogeneous group; and 4) in the short term, provide the poorest women farmers with productivity-enhancing safety nets to address household food consumption deficits.

11. Haidari H.K.R. Amani, H.K.R. (2003) "Trade policies and agricultural trade in the SADC Region: challenges and implications." Regional Synthesis Report. Economic and Social Research Foundation (ESRF), Tanzania. This Economic and Social Research Foundation (ESRF) Synthesis report provides up-to-date information on the reforms that SADC member countries have implemented to improve trade regimes since the 1980s. Such reforms have been supported by the implementation of multilateral, regional and bilateral trade agreements. The report demonstrates that the motivation for SADC countries to engage in trade agreements has been to secure an improvement in market access for exports and attain efficiency in sourcing of imports. The empirical findings of this study summarized in the report show that trade, through Multilateral Trade Agreements (MTA) and through Economic Partnership Agreements (EPAs), has improved substantially in the region and it will grow more when the SADC "Trade Protocol" becomes fully implemented. However, there is much more to be done in order to achieve a fully integrated regional trade zone in agricultural and food products in the SADC region; for that to happen policy backsliding has to cease, the region has to capitalize on regional economies of scale, the border should be made less wide and the role and scope of the existing regional and international agreements have to be clarified.

12. Hassan, R.M., Fairbanks, D.H.K., Faki, H. and Magagula G. (1999) "Analysing comparative advantage of agricultural production and trade options in Southern Africa: guidelines for a unified approach." Technical Paper No.100. September 1999. The study on which this technical paper is based is one in a series of studies on Africa's regional trade and comparative advantage, a joint activity of USAID Africa Bureau's Office of Sustainable Development, Agriculture, Natural Resources, and Rural Enterprise (ANRE) Division and the Regional Economic Development Services Office for Eastern and Southern Africa (REDSO/ESA). Seven countries in southern Africa(SA) have participated in the research program. The document develops a unified analytical framework and guidelines for the comparative economic analysis (CEA) studies of the seven countries. These studies do not only examine the existing comparative advantages, but also provide a means to evaluate the impact of different agricultural policies on comparative advantage. This proves to be an especially valuable tool to guide policymakers in the region. The focus of the document is on the operational aspects of implementing CEA analysis with special emphasis on the use of spatial analysis and geographic information systems (GIS) tools to conduct CEA analysis within an agro-ecological zone framework. The study was necessitated by the evidence that all countries in the SA region impose high tariff and quantitative (non-tariff) restrictions on imports, mainly to protect infant industries and subsidize domestic food production for food security and reduced reliance on food imports. That means, policy reforms aimed at dismantling protectionist measures will no doubt result in significant reductions in the magnitudes and extent of distortions in relative prices caused by such measures. As free trade will direct productive resources to their best uses on the basis of economic efficiency
13. Lewis, J.D., Robinson, S., and Thierfelcler, K. (2002) Free trade agreements and the SADC economies." The Africa Region Working Paper Series. World Bank Group, February 2002. This paper discusses a variety of trade liberalization initiatives that countries in southern Africa have engaged in under international and bilateral agreements, for example, South Africa and the European Union (EU) negotiated a free trade agreement (FTA) in 1999; the South African Customs Union (SACU) arrangement by which customs revenues are shared amongst South African and its smaller neighbors (Botswana, Lesotho, Namibia, and Swaziland); the Southern African Development Community (SADC) has been discussing the formation of a free trade area within the region. Independent of these regional trade agreements, some of the SADC countries have access to EU markets under the EU's "Everything But Arms" (EBA) Initiative, approved in February 2001. The EBA initiative provides full access to the EU markets for the world's 49 least developing countries (LDC), which includes the SADC countries Lesotho, Malawi, Mozambique, Tanzania, and Zambia. The EU has removed tariffs and quotas on most imports except arms. The three exceptions - sugar, bananas, and rice - have a longer phase out period.² In addition to participating in regional trade agreements, countries in Southern Africa are also members of the World Trade Organization (WTO) and therefore have an interest in multilateral tariff negotiations. Prior to the WTO, developing countries were often at the periphery. The paper focus on the impacts of the EU-South Africa Free Trade Agreement (FTA) on trade welfare, and economic structure in South Africa and the rest of Southern Africa; the benefits of unilateral access to the EU for the SADC countries that qualify for the EBA initiative and on whether South Africa can serve as a growth pole for the SADC region.

14. Mellor, John W. and Chandrashekhar Ranade. (2002) "The impact of agricultural growth on employment in Egypt: a three-sector model" Abt Associates Special Study Report No. 4. Prepared for USAID/Egypt Office of Economic Growth and Agricultural Development Division. Mellor and Ranade investigate the hypothesis that accelerated growth in the agricultural sector is the basic determinant of increased demand for labor and resultant reduced poverty among laboring classes. Utilizing findings of Martin Ravallion, Peter Timmer, and Carl Liedholm that it is rural and agricultural growth, not urban or industrial growth that reduces poverty and increases demand for labor with a three-to-four year lag period, Mellor and Ranade present a three-sector model of Egyptian data to test the hypothesis. The sectors are Agriculture (Tradable), Urban Tradable (most of large-scale urban enterprise) and Non-Tradable (goods and services, rural or urban, not saleable because of low quality and high transaction costs). The model looks at factor shares in these three sectors, consumption patterns of the recipients of capital income, including human capital, spent entirely on tradables, and income from labor and land spent on non-tradables. The Model determined that the structure of growth makes a tremendous difference. With rapid agricultural growth, demand for labor grows rapidly; when urban tradables grow rapidly GDP grows rapidly; when the structure is weighted toward agriculture is weighted toward benefits to labor; a structure weighted toward urban tradables is weighted toward fast GDP growth. Agricultural growth increased the income of labor through its impact on demand for goods in the rural non-tradable sector. Agriculture grows largely through technological change, in turn dependant on investment in research and extension. It is this agricultural growth that, with lags, drives the engine of overall economic growth.
15. Morris, J.T., and Lewis, S. (2003) "Mission report: Lesotho, Malawi, Zambia, Zimbabwe, 22-29 January 2003." UN document. This is a hard-hitting report on the immediate and long-term implications of the crisis in southern Africa due to the concurrent HIV/AIDS epidemic and food shortages, in the context of the regions' chronic poverty, drought, problematic government policies, and natural resource degradation. The authors' view is that there is an urgent need for a profound shift in humanitarian and developmental strategies to address the crisis. The conclusion is that HIV/AIDS is the fundamental, underlying cause of the crisis. Its impact on the region's already-overworked women and the need for a broadly implemented joint effort to take action on gender and HIV/AIDS without delay is highlighted. The factors that make the current food crisis unique and require a different definition of "emergency" and a different set of responses are reviewed. The report identifies three results of the pandemic that are priorities for urgent action—women's increasing vulnerability, orphans, and the decimation of the region's most productive, skilled, and educated people—and recommends a series of new responses to address them. The need to use a "HIV/AIDS lens" to respond to emergencies, for development programming, and to increase the understanding and measurement of the complex crisis is stated. There is a summary of the current status of the agricultural crisis and the effects of the HIV/AIDS pandemic for each country, based on information from field visits to agricultural areas, hospitals, the private sector, and meetings with senior government officials. Recommendations for further action in each country are made based on this information.

16. New Partnership for Africa's Development (NEPAD). (2002) "Increasing food supply and reducing hunger: Strengthening national and regional food security. An extract from 'Comprehensive Africa Agriculture Development Program (CAADP).'" August 2002. NEPAD is a vision and programme of action for the development of the African continent. It is a plan that has been conceived and developed by African leaders presenting a comprehensive integrated development plan that addresses key social, economic and political priorities in a coherent and balanced manner. More importantly, NEPAD presents a commitment that African leaders are making to the African people and to the international community, to place Africa on a path of sustainable growth, and the integration of the African continent into the global economy. It is a call to the rest of the world to partner Africa in her own development on the basis of her own agenda and program of action. The NEPAD-CAADP is a document that has been endorsed by the governments of Africa through the Ministers of Agriculture. It was prepared by FAO in co-operation with the NEPAD Steering Committee as a plan of action to revitalize African agriculture. The document offers a broad frame of priorities from which more precise strategies and programs can be derived for operationalization. Therefore, the program on agriculture proposed therein is open to continuing improvement and to interpretation for each of Africa's sub-regions in order to best address that continent's diversity. NEPAD and AICHA programs are quite complementary.
17. Otsuki, Tsunehiro, John. S. Wilson and Mirvat Sewadeh. (2001) "Saving two in a billion: quantifying the trade effect of European food safety standards on African Exports." *Food Policy* (26), 495-514.⁴⁹ The authors, both World Bank economists, use regression analysis to examine the potential impact of European sanitary and phytosanitary standards on food trade between 9 African and 15 European countries. The authors found that the new harmonized EU standard for aflatoxin contamination, one considerably more restrictive than Codex-established guideline, will impose a considerable loss of export revenue for African exporters—estimated at \$670 million per year compared to estimated trade levels—if the Codex guideline were used. Cereals, dried fruits, and edible nuts are found to be affected by aflatoxin standards. A 1 percent lower standard maximum allowable level of contamination results in a 1.1 percent decline in African cereal exports to Europe and a 0.43 percent reduction for fruit, nuts and vegetables. The estimated reduction in deaths in the EU from aflatoxin-induced liver cancer resulting from introduction of these more restrictive standards is 2.3 deaths per billion per year vs. the number of estimated deaths were the Codex standard. WHO estimates that 33,000 people die from liver cancer annually in EU countries. Thus the \$670 million loss to African exporters caused by the higher-than-Codex levels set by the EU will result in the saving of approximately 2 lives per billion risk per year. The authors suggest that the cost to African agricultural exports is too much to pay for this modest saving of lives. They recommend use of the WTO's Codex standard in the EU.
18. Rathgeber, E. (2003) "Dry taps...gender and poverty in water resource management." FAO document. Rathgeber reviews integrating gender concerns into water programs. The review

⁴⁹ An earlier version of this article can be found at the World Bank website at: http://econ.worldbank.org/files/1424_wps2563.pdf

also includes the position of disadvantaged social groups such as the poor and landless in the allocation and control of water resources. The central theme is that women and the poor are the most vulnerable members of society and often have no voice in decision-making about a key productive resource, water, and little priority given to their needs. The gender issues in water policy and strategy, and power and powerlessness in water projects and management, are discussed. The gendered nature of water use and decision-making are examined in irrigated and rainfed agriculture, watershed development, fisheries, and disaster preparedness and response.

Women's participation in the utilization and management of water resources must be examined in the broader context of their gender roles in different societies, and their access to productive resources. There is more literature about women's domestic roles related to water than about their economically productive roles related to water. Gender generally is not integrated into water-related projects, particularly watershed or irrigation development projects, because these are technical projects implemented by engineers who lack the requisite training. Large-scale irrigation projects rarely integrate gender issues, with the result that women usually are excluded or have roles as laborers rather than landowners. The impacts of watershed development projects usually are described from a gender-neutral perspective, which conceals their differential impact on men and women and different social groups. Assuming that men and women farmers have homogenous water needs and taking men as community representatives does not represent all the actors who have a stake in decision-making about managing water. One result is that women often have been marginalized in water-allocation policies, which has an adverse effect on gender equality and on addressing food security problems. Rathgeber's analysis indicates that development planners have used traditional views about women's water use and set priorities assuming that it is primarily a household responsibility, rather than recognizing their important role in agriculture as part of water resource planning. Thus there is a need to promote gender equality in the access to, control over, and management of water resources. FAO's 2001 "Irrigation Sector Guide" was designed to respond to this problem: it is designed for a wide audience to support the gender-sensitive participatory planning of irrigation schemes and to integrate socio-economic and gender issues into the planning process.

19. SADC FANR. Vulnerability Assessment Committee. (2003) "Towards identifying impacts of HIV/AIDS on food insecurity in Southern Africa and implications for response: findings from Malawi, Zambia and Zimbabwe." This SADC report is very useful because it is thorough, current, and provides statistics and graphs that quantify the impact of HIV/AIDS on household food security in three southern African countries. The purpose of the vulnerability assessment was to help fill the information gap on the impact of HIV/AIDS on acute food insecurity in the southern region. SADC's perspective is that household food insecurity in rural and urban southern African can only be understood if HIV/AIDS is factored into the analysis, and that an effective analysis of the causes and outcomes of the disease requires a contextual understanding of livelihoods unique to particular areas and/or social groups. The data were collected in August and December of 2002. The results of the assessment indicate that households affected by HIV/AIDS—as indicated by adult morbidity, mortality, and high

dependency ratios—are significantly more vulnerable to food security shocks than other households. Affected households suffer from marked decreases in agricultural production and income, which lead to distress coping strategies, including strategies that erode household resources, and ultimately to decreased food security. The data show that different morbidity, mortality, and demographic profiles have different effects on food security. Key differences include if a household includes an active or a chronically ill adult, if the household head is chronically ill, the dependency ratio, and the presence of orphans. Differences in gender and age have an influence on these factors and thus ultimately on household food security. The survey data are organized into tables and graphs that quantify the effects of these key differences, including gender, on critical topics: household income, purchasing power, food and cash crop production, area planted, agricultural input use, and cropping patterns. The data also are used to calculate a food consumption index and household cereal gaps that show the effects of HIV/AIDS on food security. A “three-pronged” programming response is recommended, based on the assessment findings: consumption-side support, productivity-enhancing support, and household and community safety nets. The former includes school feeding programs and food-for-work designed for the elderly or the ill. Support of agricultural productivity must be adapted to the needs and capacities of HIV/AIDS-affected households. Safety nets, that must be tailored to different types of households and areas, include microfinance, savings schemes, savings-led credit initiatives, and community resource mobilization campaigns that tap external resources.

20. Smith, L.C., and Haddad, L. (2000) “Overcoming child malnutrition in developing countries: past achievements and future choices.” IFPRI 2020 Brief 64. This paper is an overview of two decades of trends in child malnutrition in developing countries, with regional analyses that include SSA. The major topics covered are the causes of malnutrition, the determinants of children’s nutritional status, the determinant variables associated with malnutrition, how malnutrition has been reduced in the past, and projections of child malnutrition in 2020 using alternative scenarios (pessimistic and optimistic). Typical of IFPRI’s work, it is empirical, quantitative, thorough, and provides numerous examples and statistics from SSA. It is a useful reference for contextual, regional information with data from a considerable time-depth, 1970-1995. Tables and graphs provide quantitative information by region so that SSA, which has the world’s greatest problem with child malnutrition, can be seen in the global context. The reasons why child malnutrition has increased in SSA are addressed briefly. They include the declining relative status of women; the deterioration in per capita national income, and thus rising poverty; stagnant per capita food availability; and lack of education for women. Debt, structural adjustment, conflict; and the HIV/AIDS pandemic also are postulated as reasons although they were not analyzed in this paper due to lack of data. The authors conclude that SSA will make little progress in reducing child malnutrition by 2020. Given the slow rates of decrease in the prevalence of malnutrition and the large increases expected in the total number of children under five in the region, the number of malnourished children is expected to increase regardless of pessimistic or optimistic future scenarios. The authors’ analysis shows that there are four explanatory variables that represent the underlying determinants of child malnutrition: national food availability, women’s education, women’s status relative to men’s, and access to safe water. Of these, women’s education has the strongest impact on child

malnutrition, followed closely by per capita food availability. Increases in women's status and improvements in the quality of a country's health environment also have strong effects on malnutrition and are necessary to reduce it. The differential importance of these variables in different regions is shown in tables. The aim of the analysis is to provide information to help policy-makers prioritize their investments to reduce child malnutrition. Investing in improving these variables could help change the predicted increase in SSA's share of the total number of malnourished children, from the current 19% up to 35% in 2020.

21. UNAIDS. (2002). "Epidemiological Fact Sheets on HIV/AIDS and Sexually Transmitted Infections, 2002 Updates". UNAIDS is the Jointed United Nations Programme on HIV/AIDS that works with WHO on the global surveillance of HIV/AIDS and other sexually transmitted infections. Information on these topics is available from UNAIDS online at "www.unaids.org" and from WHO at "www.who.int." The program began its global surveillance in late 1996, in collaboration with national AIDS programs and the national and international institutions that provide country-specific data. The UNAIDS "Epidemiological Fact Sheets on HIV/AIDS" are probably the best source of up-to-date, country-specific information on the HIV/AIDS epidemic in each of the twelve countries where RCSA works. Much of the information in the Fact Sheets is standardized and therefore can be compared and aggregated to the regional level. The Fact Sheets provide information on the prevalence and incidence of HIV/AIDS and on some of the behaviors that affect its transmission, such as condom use and casual sex. This includes information on the number of people living with HIV/AIDS by year and by type (adults, women, children); the annual number of HIV/AIDS deaths; and the current number of orphans left by the disease. HIV sentinel surveillance from prenatal clinic attendees in rural and urban areas provides information on changes in HIV prevalence rates in different age groups over time. Some information on HIV rates in other social groups—sex workers, injecting drug users—also is in the Fact Sheets. There is information on the number of AIDS cases by year and by mode of transmission, and on the number of cases by sex and age by year. Maps show the location and HIV prevalence of HIV sentinel sites in relation to population density, major urban areas, and communication routes.
22. Van Rooyen, Johan, and Howard Sigwele. (1999) "Towards regional food security in Southern Africa: a (new) policy framework for the agricultural sector." *Food Policy* 23. pp. 491–504. The article argues the importance for food security of agricultural development in Southern Africa. "Sustained agricultural performance will play a significant role in the improvement of food security and livelihoods in the region." However, consideration must be given to the dramatically increasing number of urban food insecure in the region and feeding the urban masses at affordable prices will increasingly become a high priority consideration for agriculture. Household-level poverty reduction, economic development and growth are important components of a food security strategy. Agriculture is key to all of these and the development of a productive agricultural sector will depend on investment in infrastructure and marketing systems as well as in making appropriate technological advances available to farmers. Agricultural transformation must proceed through four phases or environments: i) getting agriculture moving; ii) agriculture as the major generator of economic growth; iii) agriculture increasingly integrated into the economy; and iv) agriculture as a component of

industrial economies. The ability of agriculture to play these consecutive roles in Southern Africa will be determined, in part by the nature of political and government support for agriculture, regionalism, and trade integration. Meanwhile per capita food production has fallen by nearly two percent per year since the 1980s while demand for cereals in the region will grow from an estimated 27 million MT in 1989 to about 70 million MT in 2025. The sector, the authors conclude, is not yet performing in an optimal manner.

23. von Braun, J., Hazell, P., Hoddinott, J. and Babu, S. (2003) "Achieving long-term food security in southern Africa: International perspectives, investment strategies and lessons." Keynote paper prepared for the Southern Africa Regional Conference on Agricultural Recovery, Trade and Long-term Food Security, March 26-27, 2003, Gaborone, Botswana. Von Braun and his team at IFPRI nicely present a synthesis report on most aspects of food security and rural livelihoods. The paper presents some of the approaches that other developing countries once threatened by famine used to avert future food crises and embarked on a path towards long-term food security, the approaches suggested present options for the countries of southern Africa. The paper also argues that for long-term investments to work, the countries must develop the capacity of their public institutions, particularly in the areas of policy analysis, research support, data and information collection and management, analytical capacity for strategy development, and planning, monitoring and evaluation. Considerations of what kinds of investments are needed to get agriculture moving again in the region and that will create conducive situation for relief and development are also necessary. Designing the appropriate policies is the key to all the other impact strategies and investments that will effectively place the region on a path to food security. However, policy-based approach are not enough to avoid food shortages and achieve long-term food security. A rights-based approach to food security is necessary, coupled with good governance: rule of law, democracy, accountability and transparency.
24. Webster, J. (2003) "Biotechnology policy framework: A presentation made to the FANRPAN Conference on Agricultural Recovery, Trade and Long-Term Food Security." March 26-27, 2003. Gaborone, Botswana. During the FANRPAN organized policy dialogue (26-27, 2003) Jocelyn Webster, of AfricaBio made some recommendations regarding a regulatory system for GM organisms (GMOs) and a harmonization at national, regional and international levels which can be developed further and can provide a framework for developing a biotechnology policy. She proposes a GMO Act, the aims of which would be to provide for measures to promote the responsible development, production, use and application of genetically modified organisms (including importation, production, release and distribution) and to limit possible harmful consequences to the environment, including giving attention to the prevention of accidents and effective management of waste. The fears and uncertainties regarding GMOs may be unfounded, but they cannot be wished away, they have to be dealt with in a systematic and clear framework. A number of biotechnology policy recommendations for southern African regional level have been proposed and discussed. The pre-requisite to such policy is the harmonization between national policy development and regional and international structures as well as virtual structures for regional harmonization.

25. Wiggins, S. (2003) "Lessons from the current food crisis in southern Africa." A paper offering an outline of the findings emerging from a meeting arranged by SARPAN with CARE and IFAS on 18 March 2003.⁵⁰ Wiggins documents some of the most recent reviews on food security in Southern Africa and other initiatives carried out by several official donors and NGOs including, for example the EU, CARE International, formal research, including a review of relief efforts by academics in the southern African region and others such as Georgetown University, the Institute of Development Studies, Sussex, Imperial College at Wye, University of East Anglia, the Natural Resources Institute, Greenwich and at the Overseas Development Institute, just to mention a few. In the region, networks such as Food, Agriculture and Natural Resources, Policy Analysis Network (FANRPAN) and Southern African Regional Poverty Network (SARPAN) have initiated overall reviews. However the focus of the paper is twofold, first, to outline an initiative called the Forum for Food Security in Southern Africa and then to report the findings emerging from a meeting arranged by SARPAN with CARE and IFAS on 18 March 2003. The results of that meeting provided background information for the FANRPAN organized regional policy dialogue aimed at identifying and articulating key policy constraints to agricultural recovery, trade and the food security requirements within the context of the 2002 food emergency, which took place on March 26-27, in Gaborone, Botswana. The paper demonstrates that there is much relevant high quality research-based evidence and economic analysis on the rural economy in Southern Africa, but it is not being synthesized and fed into public policy processes for rural growth and poverty alleviation. The paper thus, summarizes a proposed project, which will support strategic thinking on food security issues in Southern Africa by facilitating a forum of specialists and key policy stakeholders from the international and regional research community, donors, NGO, civil society and private sector with identified specialist knowledge of the issues and the region. The project will be funded by the UK Department for International Development and implemented by a consortium of institutions in the UK and Southern Africa.

⁵⁰ Note: The Wiggins paper cited in the main report is a later (March 23, 2003) and much modified version of this paper.