

Open Access (freely accessible on web)

Amarasinghe, Upali A.; Singh, O. P. 2009. ***Changing consumption patterns of India: implications on future food demand.*** In Amarasinghe, Upali A.; Shah, Tushaar; Malik, R. P. S. (Eds.). Strategic Analysis of the National River Linking Project (NRLP) of India, Series 1: India's water future: scenarios and issues. Colombo, Sri Lanka: International Water Management Institute (IWMI) pp.131-146.

Food consumption ; Cereals ; Animal production / India

(Location: IWMI HQ Call no: IWMI 333.9162 G635 AMA Record No: H042036)

<http://www.iwmi.cgiar.org/Publications/Other/PDF/Paper%208%20of%20NRLP%20series%201.pdf>

Mukherji, Aditi; Facon, T.; Burke, J.; de Fraiture, Charlotte; Faures, J. M.; Fuleki, Blanka; Giordano, Mark; Molden, David; Shah, Tushaar. 2009. ***Revitalizing Asia's irrigation: to sustainably meet tomorrow's food needs.*** Colombo, Sri Lanka: International Water Management Institute (IWMI); Rome, Italy: FAO. 39p.

Irrigated farming ; Food security ; Irrigation management ; Participatory management ; Water users associations ; Public sector ; Private sector ; Farmer managed irrigation systems ; Surface irrigation ; Pumps ; Groundwater irrigation ; Water productivity ; Models ; Reservoirs ; Canals ; Tanks ; Irrigation programs ; Climate change ; Water conservation / Asia

Call no: IWMI 631.7 G570 MUK Record No: H042273)

<http://www.iwmi.cgiar.org/Publications/Other/PDF/Revitalizing%20Asia%27s%20Irrigation.pdf>

International Water Management Institute (IWMI). 2008. ***Strategic plan 2009-2013: water for a food-secure world.*** Colombo, Sri Lanka: International Water Management Institute (IWMI). 22p.

Strategy planning ; Research institutes ; Institutional development ; Research priorities ; Water resource management ; Water governance

(Location: IWMI HQ Call no: IWMI 631.7.3 G000 INT Record No: H041708)

http://www.iwmi.cgiar.org/About_IWMI/PDF/Strategic_Plan_2009-2013.pdf

Lundqvist, J.; de Fraiture, Charlotte; Molden, David; Berndes, G.; Berntell, A.; Falkenmark, M.; Holmen, H.; Karlberg, L.; Lannerstad, M. 2008. ***Saving water: from field to fork: curbing losses and wastage in the food chain. Draft for CDS, May 2008.*** Stockholm, Sweden: Stockholm International Water Institute

(SIWI); Colombo, Sri Lanka: International Water Management Institute (IWMI); Goteborg, Sweden: Chalmers University; Stockholm, Sweden: Stockholm Environment Institute. 36p. (SIWI Paper 13)

Food production ; Food supply ; Food consumption ; Water conservation ; Water requirements ; Climate change ; Water scarcity ; Bioenergy ; Developing countries ; Developed countries ; Rainfed farming ; Irrigated farming

(Location: IWMI HQ Call no: e-copy only Record No: H041461)

http://www.siwi.org/documents/Resources/Papers/Paper_13_Field_to_Fork.pdf

This report and the Side Event at CSD 16, May 5–16, 2008, are following up reports that have been prepared for two previous CSD meetings, “Water – More Nutrition per Drop” (2004*) and “Let it Reign: The New Water Paradigm for Global Food Security” (2005**). The topics addressed in the previous reports, and also in this report, are the links between water, food and development, which are high on the agenda for Swedish international development collaboration. This report highlights the magnitude of losses and wastage in the food chain, i.e. from field to fork. It is shown that a reduction of losses and wastage would save water and facilitate the achievement of multiple development objectives.

Mukherji, Aditi. 2008. ***The paradox of groundwater scarcity amidst plenty and its implications for food security and poverty alleviation in West Bengal, India: What can be done to ameliorate the crisis?*** Paper presented at the 9th Annual Global Development Network Conference, Brisbane, Australia, 29-31 January 2008. 24p.

Groundwater irrigation ; Water market ; Electrification ; Tube wells ; Policy ; Poverty / India / West Bengal

(Location: IWMI HQ Call no: IWMI 631.7.6.3 G635 MUK Record No: H040739)

http://www.indiawaterportal.org/data/datastats/wb/Groundwater_Scarcity_West_Bengal_Aditi_IWMI_2007.pdf

West Bengal is a state of plentiful rainfall, high groundwater potential most of which is available at very shallow depths. It is also one of the poorer states in India. In view of this, many agencies such as Reserve Bank of India and the World Bank have recommended groundwater irrigation as an important tool for rural poverty alleviation. West Bengal had recorded high agricultural growth rates in the early 1990s and groundwater irrigation played an important role in that growth. Unfortunately, this growth could not be sustained. This paper argues that one of the main reasons for recent stagnation in West Bengal’s agriculture is the severe ‘energy-squeeze’ it is experiencing due to overwhelming dependence on diesel pumps, recent escalation in diesel prices and low rates of rural electrification. This paper argues that the current groundwater related policies have a resource conservation bias because they have been inordinately influenced by the dominant discourse on scarcity and depletion – a discourse which does not hold good in the case of West Bengal – a water abundant state steeped in poverty. In view of this

paradox of scarcity amidst plenty, this paper based on primary data from 40 villages and 580 respondents makes a case for deploying groundwater irrigation for poverty alleviation through electrification of irrigation tubewells and continuation of high flat rate tariff. Quite contrary to the received wisdom that electricity subsidies benefit only the rural rich and that metering of irrigation tubewell is the only answer, this paper argues that neither is necessarily true in the case of water abundant eastern India where efficient and largely equitable groundwater markets operate.

Noble, Andrew, D.; Bossio, Deborah; Pretty, J.; Penning de Vries, F. 2008. ***Bright spots: pathways to ensuring food security and environmental integrity***. In Bossio, Deborah; Geheb, Kim (Eds.). *Conserving land, protecting water*. Wallingford, UK: CABI; Colombo, Sri Lanka: International Water Management Institute (IWMI); Colombo, Sri Lanka: CGIAR Challenge Program on Water & Food. pp.191-204. (Comprehensive Assessment of Water Management in Agriculture Series 6)

Food security ; Sustainable agriculture

(Location: IWMI HQ Call no: IWMI 631.7 G000 BOS Record No: H041602)

http://www.iwmi.cgiar.org/Publications/CABI_Publications/CA_CABI_Series/Conserving_Land_Protecting_Water/protected/9781845933876.pdf

Penning de Vries, F.; Acquay, H.; Molden, David; Scherr, S.; Valentin, C.; Cofie, Olufunke. 2008. ***Learning from bright spots to enhance food security and to combat degradation of water and land resources***. In Bossio, Deborah; Geheb, Kim (Eds.). *Conserving land, protecting water*. Wallingford, UK: CABI; Colombo, Sri Lanka: International Water Management Institute (IWMI); Colombo, Sri Lanka: CGIAR Challenge Program on Water & Food. pp.1-19. (Comprehensive Assessment of Water Management in Agriculture Series 6)

Ecosystems ; Land degradation ; Food security ; Water management ; Land management

(Location: IWMI HQ Call no: IWMI 631.7 G000 BOS Record No: H041590)

http://www.iwmi.cgiar.org/Publications/CABI_Publications/CA_CABI_Series/Conserving_Land_Protecting_Water/protected/9781845933876.pdf

Amarasinghe, Upali A.; Shah, Tushaar; Singh, Om Prakash. 2007. ***Changing consumption patterns: implications on food and water demand in India***. Colombo, Sri Lanka: International Water Management Institute (IWMI). 37p. (IWMI Research Report 119) doi: <http://dx.doi.org/10.3910/2009.119>

Food consumption ; Cereals ; Water demand ; Water use ; Irrigated farming ; Crop production ; Grain ; Livestock / India

(Location: IWMI HQ Call no: IWMI 631.7 G635 AMA Record No: H040401)

http://www.iwmi.cgiar.org/Publications/IWMI_Research_Reports/PDF/PUB119/RR119.pdf

Increasing income and urbanization are triggering a rapid change in food consumption patterns in India. This report assesses India's changing food consumption patterns and their implications on future food and water demand. According to the projections made in this study, the total calorie supply would continue to increase, but the dominance of food grains in the consumption basket is likely to decrease by 2050, and the consumption of non-grain crops and animal products would increase to provide a major part of the daily calorie supply. Although the total food grain demand will decrease, the total grain demand is likely to increase with the increasing feed demand for the livestock. The implications of the changing consumption patterns are assessed through consumptive water use (CWU) under the assumptions of full or partial food self-sufficiency.

Chilonda, Pius; Machethe, C.; Minde, I. 2007. **Poverty, food security and agricultural trends in Southern Africa**. Pretoria, South Africa: Regional Strategic Analysis and Knowledge Support System for Southern Africa (ReSAKSS-SA); International Water Management Institute (IWMI); International Crops Research Institute for the Semi-Arid Tropics (ICRISAT); Washington, DC, USA: International Food policy Research Institute (IFPRI) 53p. (ReSAKSS-SA Working Paper 1)

Poverty ; Indicators ; Population ; Public health ; Education ; Employment ; Food security ; Crop production ; Livestock ; Agricultural development ; Trade / Southern Africa

(Location: IWMI HQ Call no: e-copy only Record No: H041607)

<http://www.resakss.org/index.php?pdf=1347>

de Fraiture, Charlotte; Smakhtin, Vladimir; Bossio, Deborah; McCornick, Peter G.; Hoanh, Chu Thai; Noble, Andrew; Molden, David; Gichuki, Francis; Giordano, Mark; Finlayson, Max; Turrall, Hugh. 2007. **Facing climate change by securing water for food, livelihoods and ecosystems**. Journal of SAT Agricultural Research, 4(1). 21p.

Climate change ; Flooding ; Drought ; Risks ; Ecosystems ; Wetlands ; Water resource management ; Productivity ; Rainfed farming ; Irrigated farming ; Water storage

(Location: IWMI HQ Call no: IWMI 338.1 G000 DEF Record No: H040782)

<http://www.icrisat.org/journal/SpecialProject/sp11.pdf>

Future changes in water availability due to climate change (CC) are of paramount importance for food security of millions of rural people worldwide. Many recent extremes of water shortage followed by devastating floods reflect some of the climate change predictions, which are gradually becoming more

certain and alarming. Appropriate measures in agricultural water management can greatly reduce poor people's vulnerability to CC by reducing water related risks and creating buffers against often unforeseen changes in precipitation and water availability. An appropriate water research agenda is essential to improve our knowledge of the linkages between water, food and CC and guide the right investments aimed at improving resilience of farming communities and food security. This agenda includes understanding the adaptation and mitigation roles of agricultural practices and water resources management options, characterization of climate change impacts at different scales, and evaluation of water implications of direct climate change mitigation interventions. This agenda will result in strategies that contribute to reduced risk and enhanced resilience of agricultural systems. Building on its research capital in the water, food and livelihood nexus, IWMI is in a good position to help formulate and implement this agenda.

Lundqvist, J.; de Fraiture, Charlotte; Molden, David. 2007. ***From field to fork: wastage of water in the food chain***. Stockholm Water Front, 3:14-15.

Crop production ; Livestock ; Food security ; Food consumption ; Wastage ; Irrigation water

(Location: IWMI HQ Call no: IWMI 631.7 G000 LUN Record No: H040634)

<http://www.siwi.org/downloads/WF%20Magazine/WF-3-2007-web.pdf>

Molden, David; de Fraiture, Charlotte; Rijsberman, Frank. 2007. ***Water scarcity: The food factor***. Issues in Science and Technology, Summer:39-48.

Water scarcity ; Crop production ; Water use ; Irrigation water ; Drinking water ; Food production

(Location: IWMI HQ Call no: IWMI 338.19 G000 MOL Record No: H040635)

http://findarticles.com/p/articles/mi_qa3622/is_200707/ai_n19511078

Saleth, Rathinasamy Maria; Dinar, A.; Neubert, S.; Kamaiah, B.; Manoharan, S.; Abayawardana, Sarath; Ariyaratne, Ranjith; de Silva, S. 2007. ***Institutions, impact synergies and food security: a methodology with results from the Kala Oya Basin, Sri Lanka***. Colombo, Sri Lanka: International Water Management Institute (IWMI). 46p. (IWMI Research Report 124) doi: <http://dx.doi.org/10.3910/2009.123>

Institutional development ; Development plans ; Development policy ; Impact assessment ; River basins ; Food security ; Models / Sri Lanka / Kala Oya Basin

(Location: IWMI HQ Call no: IWMI 338.1 G744 SAL Record No: H040802)

http://www.iwmi.cgiar.org/Publications/IWMI_Research_Reports/PDF/PUB124/RR124.pdf

The success of development programs depends on the role of underlying institutions and the impact synergies from closely related programs. Existing literature has limitations in accounting for these critical factors. This paper fills this gap by developing a methodology, which can quantify both the institutional roles in impact generation and the impact synergies from related programs. The methodology is applied to the Kala Oya Basin in Sri Lanka for evaluating the impacts of three development programs and 11 institutions on food security. The results provide valuable insights on the relative roles of institutions and the varying flow of impact synergies both within and across impact pathways.

Bhatt, Yogesh; Bossio, Deborah; Enfors, E.; Gordon, L.; Kongo, V.; Kosgei, J. R.; Makurira, H.; Masuki, K.; Mul, M.; Tumbo, S. D. 2006. ***Smallholder system innovations in integrated watershed management (SSI): strategies of water for food and environmental security in drought-prone tropical and subtropical agro-ecosystems.*** Colombo, Sri Lanka: International Water Management Institute (IWMI) 59p. (IWMI Working Paper 109; SSI Working Paper 1)

Watershed management ; Catchment areas ; River basins ; Hydrology ; Models ; Water harvesting ; Crop production / Africa South of Sahara / South Africa / Tanzania / Thukela River Basin / Pangani River Basin

(Location: IWMI-HQ Call no: IWMI 631.7 G100 BHA Record No: H039095)

http://www.iwmi.cgiar.org/Publications/Working_Papers/working/WOR109.pdf

Sullivan, C.; Vorosmarty, C. J.; Craswell, E.; Bunn, S.; Cline, S.; Heidecke, C.; Storeygard, A.; Prousevitch, A.; Douglas, E.; Bossio, Deborah; Gunther, D.; Giacomello, A. M.; O'Regan, D.; Meigh, J. 2006. ***Mapping the links between water, poverty and food security: Report on the Water Indicators Workshop held at the Centre for Ecology and Hydrology, Wallingford, UK, 16-19 May, 2005.*** Bonn, Germany: Global Water System Project. 58p. (GWSP issues in global water system research no.1)

Water resource management ; River basins ; Indicators ; Models / South East Asia / Mekong River

(Location: IWMI-HQ Call no: IWMI 333.91 G000 SUL Record No: H039648)

http://www.gwsp.org/downloads/gwsp_issues_no1_lowres.pdf

Awulachew, Seleshi Bekele; Merrey, Douglas; Kamara, Abdul; van Koppen, Barbara; Penning de Vries, Frits; Boelee, Eline. 2005. ***Experiences and opportunities for promoting small-scale/micro irrigation and rainwater harvesting for food security in Ethiopia.*** Colombo, Sri Lanka: International Water Management Institute (IWMI) x, 86p. (IWMI Working Paper 98)

Water harvesting ; Irrigation systems ; Irrigation programs ; Gender ; Agricultural extension ; Farmers / Ethiopia

(Location: IWMI-HQ Call no: IWMI 631.7 G136 AWU Record No: H038044)

<http://www.iwmi.cgiar.org/pubs/working/WOR98.pdf>

Kumar, M. Dinesh; Singh, Om Prakash. 2005. ***Virtual water in global food and water policy making: is there a need for rethinking?*** IWMI-Tata Water Policy Research Highlight; Water Resources Management, 2005/3:7p.; 19:759-789.

Water scarcity ; Water policy ; Food policy

(Location: IWMI-HQ Call no: IWMI 631.7.3 G000 KUM Record No: H036595)

<http://www.iwmi.cgiar.org/iwmi-tata/FILES/zip/H05/03.zip>

Cofie, O. O.; van Veenhuizen, R.; Drechsel, P. 2003. ***Contribution of urban and peri-urban agriculture to food security in Sub-Saharan Africa.*** Paper presented at the Africa Session of 3rd WWF, Kyoto, 17 March 2002. 12p.

Food security ; Irrigated farming ; Risks ; Urbanization ; Economic aspects / Africa South of Sahara

(Location: IWMI-HQ Call no: IWMI 338.19 G110 COF Record No: H031922)

<http://www.ruaf.org/node/1130>

Kumar, M. D. 2003. ***Food security and sustainable agriculture in India: The water management challenge.*** Colombho, Sri Lanka: IWMI. vi, 36p. (IWMI working paper 60)

Sustainable agriculture ; Food security ; Water management ; Water scarcity ; Groundwater depletion ; Waterlogging ; Salinity ; Soil degradation ; Water use efficiency ; Productivity ; Equity ; Irrigation water ; Pricing / India

(Location: IWMI-HQ Call no: IWMI 631.7 G635 KUM Record No: H033990)

http://www.iwmi.cgiar.org/Publications/Working_Papers/working/WOR60.pdf

Penning de Vries, Frits W. T.; Acquay, H.; Molden, David; Scherr, S. J.; Valentin, Christian; Cofie, Olufunke. 2003. ***Integrated land and water management for food and environmental security.*** Colombo, Sri Lanka: International Water Management Institute (IWMI), Comprehensive Assessment Secretariat. viii, 62p. (Comprehensive Assessment of Water Management in Agriculture Research Report 1)

Water resource management ; Food security ; Environmental effects ; Soil degradation ; Water pollution ; Watersheds ; Urbanization ; Public policy ; Water quality ; Ecosystems ; Land resources ; Water scarcity ; Developing countries ; Poverty ; Households ; Food supply ; Economic aspects ; Social aspects ; Groundwater depletion ; Salinity ; Wetlands ; Investment ; Land use ; Water use ; Training needs assessment ; Research priorities

(Location: IWMI-HQ Call no: IWMI 333.91 G000 PEN Record No: H034918)

<http://www.iwmi.cgiar.org/Assessment/FILES/pdf/publications/ResearchReports/CARR1.pdf>

Inocencio, A.; Sally, H.; Merrey, D. J. 2002. ***Innovative approaches to agricultural water use for improving food security in Sub-Saharan Africa***. v, 18p. (IWMI working paper 55)

Irrigated farming ; Water use ; Food security ; Water resources ; Water supply ; Rain ; Water harvesting ; Wetlands ; Food production ; Groundwater management ; Urbanization ; Recycling ; Effluents ; Waste waters ; Water reuse ; Water demand ; Crop production / Africa South of Sahara

(Location: IWMI-HQ Call no: IWMI 631.7.8 G110 INO Record No: H030810)

http://www.iwmi.cgiar.org/Publications/Working_Papers/working/WOR55.pdf

Dayaratne, M. H. S.; Moragoda, R. 1991. ***An assessment of the village tank rehabilitation program of the Freedom From Hunger Campaign Board in Anuradhapura District***. Colombo, Sri Lanka:

International Irrigation Management Institute (IIMI) 38p. (IIMI Working Paper 20)

Farmer managed irrigation systems ; Tank irrigation ; Rehabilitation ; Farmers' associations ; Settlement / Sri Lanka / Anuradhapura / Tanthirimale

(Location: IWMI-HQ Call no: IIMI 631.7.7 G744 DAY Record No: H008447)

<http://publications.iwmi.org/pdf/H08447.pdf>

The Village Tank Rehabilitation Program of the National Freedom From Hunger Campaign (FFHC) Board is assessed in this paper as a parallel study to the Anuradhapura Dry-Zone Agriculture Project (ADZAP) which was carried out by the International Irrigation Management Institute (IIMI) in 1988. Following a nongovernmental approach, the FFHC Board has implemented tank rehabilitation programs in several districts in the island. The Thanthirimale cluster in Anuradhapura District is the largest tank rehabilitation project implemented by the Board. In this study, the Board's program in Thanthirimale was assessed through a sample survey, following a similar survey methodology used to assess the Tank Rehabilitation Program of ADZAP

Non-Open Access (not freely accessible on web)

Chartres, Colin J. 2009. ***Will improving the productivity of “green” water lead to food security?*** Paper presented at the 4th World Congress on Conservation Agriculture, Delhi, India, 3-5 February 2009. 8p.

Water productivity ; Rainfed farming ; Irrigated farming ; Food shortage ; Water scarcity ; Water shortage ; Population growth ; Food security

(Location: IWMI HQ Call no: e-copy only Record No: H041937)

Chartres, Colin J.; Varma, Samyuktha. 2009. ***Water scarcity and food security.*** Science in Parliament, 66(3):34-36.

Water scarcity ; Water shortage ; Food security ; Population growth ; Rivers ; Water demand ; Food production ; Crop production ; Biofuels ; Climate change ; Water storage ; Water resource management

(Location: IWMI HQ Call no: e-copy only Record No: H034818)

Amede, T.; Delve, R. J. 2008. ***Modelling crop-livestock systems for achieving food security and increasing production efficiencies in the Ethiopian highlands.*** Experimental Agriculture, 44(4):441-452.

Food security ; Highlands ; Nutrition ; Households ; Models ; Income ; Food production ; Cropping systems ; Erosion ; Forage / Ethiopia / Gununo

(Location: IMWI HQ Call no: IWMI 338.19 G136 AME Record No: H041610)

Awulachew, Seleshi Bekele; Sally, Hilmy; Bahri, Akissa; Molden, David; Giordano, Mark. 2008. ***Water security for food security: gaps, needs and potential for growth in Sub-Saharan Africa.*** Paper presented at the First African Water Week, “Accelerating Water Security for Socio-Economic Development of Africa”, Tunis, Tunisia, 26-28 March 2008. 15p.

Food security ; Water supply ; Water scarcity ; Infrastructure ; Climate ; Energy resources ; Water power / Africa South of Sahara

(Location: IWMI HQ Call no: e-copy only Record No: H041868)

Merrey, D. J.; Sally, Hilmy. 2008. ***Micro-agricultural water management technologies for food security in southern Africa: part of the solution or a red herring?*** Water Policy, 10:515–530.

Food security ; Irrigation management ; Policy ; Drip irrigation ; Manual pumps / Southern Africa / Africa South of Sahara

(Location: IWMI HQ Call no: IWMI Record No: H041478)

This paper is based on a review of experiences with a wide range of micro- agricultural water management technologies in sub-Saharan Africa with a special emphasis on southern Africa. The major finding of the study is that these technologies have the potential to make major contributions to improving food security, reducing rural poverty and promoting broad-based agricultural growth. However, there are serious policy impediments to successfully scaling out the use of these technologies at both national and regional levels. The paper makes seven specific policy recommendations whose implementation would enable promotion of wider uptake.

Minde, I. J.; Chilonda, Pius; Sally, Hilmy. 2008. ***Rising global food prices: policy challenges and options for Southern Africa***. Pretoria, South Africa: Regional Strategic Analysis and Knowledge Support System for Southern Africa (ReSAKSS-SA) 8p. (ReSAKSS-SA Issues Brief 6)

Food supply ; Prices ; Food policy ; Food consumption ; Biofuels ; Poverty ; Food aid ; Trade policy ; Food production ; Public investment / Africa / Southern Africa / Lesotho / Malawi / Namibia / South Africa / Tanzania / Zambia / Mozambique / Zimbabwe

(Location: IWMI HQ Call no: e-copy only Record No: H042271)

This paper considers the implications of rising prices of major food commodities in southern Africa. First, a global perspective on the phenomenon is provided, focusing on the key factors driving the upsurge in prices. Recent trends in food prices in a representative selection of southern African countries are then considered. Emerging evidence of poverty impacts is presented. The policy challenges and options facing the region's governments are then discussed. Broad conclusions round out the analysis. The paper's central argument is that appropriate policy responses to effects of rising food prices involve a mix of short-term social protection responses, long-term measures aimed at spurring agricultural productivity growth, and domestic and regionally conceived and implemented efforts to rationalize and strengthen the roles of public sectors in the region's food economies.

Molden, David. (Comp.) 2008. ***Water security for food security: findings of the Comprehensive Assessment for Sub-Saharan Africa***. Paper presented at the First African Water Week Conference, Tunis, Tunisia, 26-28 March 2008. 20p.

Rainfed farming ; Irrigated farming ; Food security ; Water productivity / Africa South of Sahara

(Location: IWMI HQ Call no: e-copy only Record No: H041684)

Tesfaye, A.; Bogale, A.; Namara, Regassa E.; Bacha, D. 2008. ***The impact of small-scale irrigation on household food security: The case of Filtino and Godino irrigation schemes in Ethiopia.*** Irrigation and Drainage Systems, 22:145–158.

Irrigation programs ; Food security ; Households ; Models ; Case studies ; Food insecurity / Ethiopia / Ada Liben district / Godino Irrigation Scheme / Filtino Irrigation Scheme

(Location: IWMI HQ Call no: 631.7.3 G136 TES Record No: H041466)

Ethiopia's irrigation potential is estimated at 3.7 million hectare, of which only about 190,000 ha (4.3% of the potential) is actually irrigated. There is little information on the extent to which the so far developed irrigation schemes have been effective in meeting their stated objectives of attaining food self-sufficiency and eradicating poverty. Therefore, the aim of this paper is to identify the impact of small-scale irrigation on household food security based on data obtained from 200 farmers in Ada Liben district of Ethiopia in 2006. The resulting data was analyzed using Heckman's Two-step Estimation procedure. Studies elsewhere revealed that access to reliable irrigation water can enable farmers to adopt new technologies and intensify cultivation, leading to increased productivity, overall higher production, and greater returns from farming. Our study findings confirm some of these claims. In the study area about 70% of the irrigation users are food secure while only 20% of the non-users are found to be food secure. Access to small scale irrigation enabled the sample households to grow crops more than once a year; to insure increased and stable production, income and consumption; and improve their food security status. The study concludes that small- scale irrigation significantly contributed to household food security.

Qadir, Mohammed; Sharma, Bharat R.; Bruggeman, A.; Choukr-Allah, R.; Karajeh, F. 2007. ***Non-conventional water resources and opportunities for water augmentation to achieve food security in water scarce countries.*** Agricultural Water Management, 87(1):2-22.

Water scarcity ; Salt water intrusion ; Groundwater ; Water quality ; Waste waters ; Water harvesting ; Irrigated farming ; Water supply

(Location: IWMI-HQ Call no: IWMI 631.7.5 G000 QAD, PER Record No: H039620)

Saleth, Rathinasamy Maria; Dinar, Ariel. 2007. ***Impact synergies, institutions, and food security: an evaluation methodology with empirical results.*** Paper presented at the Brownbag Seminar at IFPRI, Washington DC, USA, 29 October 2007. 61p.

Food security ; Institutions ; Models / Sri Lanka / Kala Oya Basin

(Location: IWMI HQ Call no: IWMI 338.19 G744 SAL Record No: H040796)

Atapattu, Sithara; Molden, David. 2006. ***Achieving food and environmental security: better river basin management for healthy coastal zones.*** In Hoanh, Chu Thai; Tuong, T. P.; Gowing, J. W.; Hardy, B. (Eds.). Environment and livelihoods in tropical coastal zones: managing agriculture, fishery, aquaculture conflicts. Wallingford, UK: CABI; Los Banos, Philippines: International Rice Research Institute (IRRI); Colombo, Sri Lanka: International Water Management Institute (IWMI) pp.293-301. (Comprehensive Assessment of Water Management in Agriculture Series 2)

River basins ; Hydrology ; Water management ; Ecosystems ; Coastal area ; Fisheries ; Poverty

(Location: IWMI-HQ Call no: IWMI 639.8 G000 HOA Record No: H039123)

Ryan, J.; Masri, S.; Qadir, Manzoor. 2006. ***Nutrient monitoring of sewage water irrigation: Impacts for soil quality and crop nutrition.*** Communications in Soil Science and Plant Analysis, 37:2513-2521.

Irrigated farming ; Water reuse ; Waste water ; Sewage ; Nutrients ; Monitoring ; Soil properties ; Rivers / Middle East / Syria / Quake River / Aleppo

(Location: IWMI-HQ Call no: IWMI 631.7.2 G746 RYA Record No: H039593)

Amarasinghe, Upali; Samad, Madar; Anputhas, Markandu. 2005. ***Spatial clustering of rural poverty and food insecurity in Sri Lanka.*** Food Policy, 30: 493-509.

Poverty ; Mapping ; Food security ; Households / Sri Lanka

(Location: IWMI-HQ Call no: IWMI 339.46 G744 AME Record No: H037889)

Drechsel, Pay. 2005. ***Multi-Stakeholder Forum on Urban and Peri-Urban Agriculture for Food Security, Livelihood Support and Urban Greening in Accra, November 29-30 November 2005.*** Keynote welcome address. 1p.

Agricultural economics ; Food security ; Farmers / Ghana

(Location: IWMI-HQ Call no: IWMI 338.1 G200 DRE Record No: H038108)

Lundqvist, J.; Falkenmark, M.; Berntell, A.; Bergkamp, G.; Molden, David; Rosegrant, M. 2005. ***Let it reign: the new water paradigm for global food security. Working report to CSD-13.*** Stockholm, Sweden: SIWI. 40p.

Food production ; Food consumption ; Food policy ; Food security ; Irrigated farming ; Governance ; Water use ; Rivers ; Fisheries ; Poverty ; Public health ; Groundwater ; Environmental effects

(Location: IWMI-HQ Call no: IWMI 338.19 G000 LUN Record No: H038129)

For the 13th meeting of the Commission on Sustainable Development (CSD-13), the Swedish International Development Cooperation Agency (Sida) commissioned the Stockholm International Water Institute (SIWI) to produce "Let it Reign: The New Water Paradigm for Global Food Security". The report presents recommendations for policy and decision makers with regard to sustainable food production, sustainable food consumption and ecological sustainability. The topic addressed in this report is an issue identified as being of very high priority for Sida. The views put forward in this report, on the other hand, are expressed solely on behalf of the authors. Collaborating partners for the report have been the International Food Policy Research Institute (IFPRI), IUCN – The World Conservation Union and International Water Management Institute (IWMI).

Raschid-Sally, Liqa; Abayawardana, Sarath. 2005. ***Wastewater as a non-traditional source of livelihoods, city food security and water for agriculture.*** In International Water Management Institute (IWMI). Wastewater use for agriculture: articles and publications by IWMI and partners, 1998-2004. 18p.

Wastewater irrigation ; Food security ; Urbanization ; Sanitation ; Water pollution ; Poverty ; Public health ; Risks ; Soil degradation

(Location: IWMI-HQ Call no: IWMI 631.7.5 G000 IWM Record No: H037199)

UNESCO-IHE; International Water Management Institute (IWMI) 2005. ***Smallholder system innovation in integrated watershed management: SSI Programme: strategies of water for food and environment security in drought prone tropical and subtropical agro-ecosystems, Tanzania and South Africa.*** Progress report No.3, 1 January - 31 December 2005: Main report. v.p.

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