

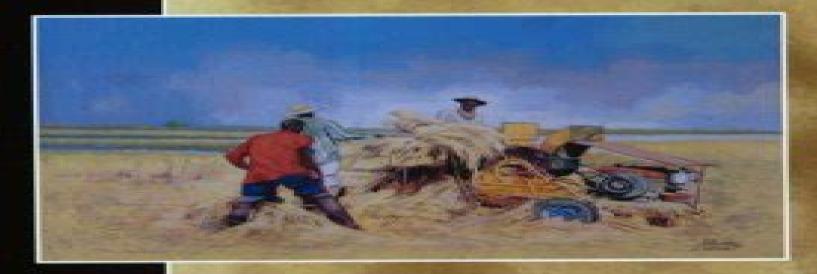
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DIRECTIONS IN DEVELOPMENT

# Making a Large Irrigation Scheme Work

A Case Study from Mali

DABRIL AW AND GEEST DIEMER



## **Making A Large Irrigation Scheme Work**

Ashok Swain, Joakim Öjendal, Anders Jägerskog

#### **Making A Large Irrigation Scheme Work:**

Making a Large Irrigation Scheme Work Djibril Aw, Geert Diemer, 2005 Making a Large Irrigation Scheme Work provides a history of irrigation management in Mali from colonial times to post independence It looks at how irrigation management reforms came about at Mali s Office du Niger and how relevant this reform process is for irrigation schemes in other countries Mali s irrigation scheme was an outcome of colonial settlement with the corresponding lack of rights for cultivators to own land process paddy and market rice Post independence a coalition of government and irrigation agency staff contributed to governmental unwillingness to reform the scheme's management Government interest lay in satisfying the growing demand for rice from its burgeoning urban constituency and a fear of riots in response to rice shortages and high prices It s interest also lay with maintaining the support of the agency s staff The authors analyze how field teams funded by bilateral donors shaped technical and institutional change to fully reform management and how grain market reforms provided farmers stronger incentives and raised yields The combination of changes inside and outside the scheme gradually shifted the balance of power and led to a stakeholder setup in which organized farmers replaced the agency Regime change to multiparty democracy and policy change toward economic liberalization then opened a window of opportunity that the government used to consolidate the reforms and the new balance of power The success of the reform process lies in the way Mali s government came to commit to the irrigation reforms The paper indicates how commitment by other governments may be achieved by using the same and other tools Making Large Irrigation Schemes Work is a useful resource for professionals involved in the transfer of management authority from government to user associations Making a Large Irrigation Scheme Work Weltbank, 2012 Located in the heart of Mali the Office du Niger ON is one of the oldest and largest irrigation schemes in Sub Saharan Africa The French who began the scheme in 1932 planned on developing about 1 000 000 hectares ha over a period of 50 years The scheme did not provide the expected resources for cotton and rice farming and a major source of exploitation of farmers Change began in the 1980 s with Government donor led reforms that resulted in dissolving the monopoly power of ON and increasing citizen participation in its management This report provides the context and details on how the government of Mali became committed to reform of the ON an irrigated rice scheme The government s decision is presented as the outcome of a series of small power shifts triggered by pro reform players Reform advocates played a key role and identified opportunities and applied their skills to tilt the power balance between agency and farmers to further goals of sustainability and partnership Initial steps for reform had a significant impact as they raised yields and farmer incomes in a single season Coalitions grew into partnership institutions that became effective enough for government to consolidate them into a legal and financial framework This case study serves as an illustration of how the World Bank and other donors can help governments turn public irrigation systems into financially sustainable operations Water Governance for Sustainable Development Sylvain Perret, Stefano Farolfi, Rashid Hassan, 2013-06-17 Good management of

water resources universally identified as a key aspect of poverty reduction agriculture and food security has proven in practice as difficult to achieve as it is eagerly sought This book edited and authored by leading authorities on water resource management examines the recent changes in governance institutions economics and policies of water covering developing transitional and developed countries with special emphasis on southern African case studies The book examines how water policies institutions and governance have shifted in recent years from supply driven quantitative centrally controlled management to more demand sensitive decentralized participatory approaches Such a move often also implies cost recovery principles resource allocation among competing sectors and privatization. The case studies demonstrate that the new policies and legal frameworks have been difficult to implement and often fall short of initial expectations Using an accessible multidisciplinary approach that integrates economics sociology geography and policy analysis the book untangles the issues and presents best practices for policy and decision makers governments and regulators NGOs and user groups service providers and researchers The overall aim is to show how good water governance structures can be developed and implemented for the benefit of all Farming Systems and Food Security in Africa John Dixon, Dennis P. Garrity, Jean-Marc Boffa, Timothy O. Williams, Tilahun Amede, Christopher Auricht, Rosemary Lott, George Mburathi, 2019-12-09 Knowledge of Africa's complex farming systems set in their socio economic and environmental context is an essential ingredient to developing effective strategies for improving food and nutrition security This book systematically and comprehensively describes the characteristics trends drivers of change and strategic priorities for each of Africa's fifteen farming systems and their main subsystems It shows how a farming systems perspective can be used to identify pathways to household food security and poverty reduction and how strategic interventions may need to differ from one farming system to another In the analysis emphasis is placed on understanding farming systems drivers of change trends and strategic priorities for science and policy Illustrated with full colour maps and photographs throughout the volume provides a comprehensive and insightful analysis of Africa's farming systems and pathways for the future to improve food and nutrition security The book is an essential follow up to the seminal work Farming Systems and Poverty by Dixon and colleagues for the Food and Agriculture Organization FAO of the United Nations and the World Bank published in 2001 Water-smart agriculture in East Africa Nicol, A., Langan, S., Victor, M., Gonsalves, J., 2015-03-01 Water user associations ,2018-06-20

Demand for Products of Irrigated Agriculture in Sub-Saharan Africa P. J. Riddell, Michael John Westlake, J. Burke, Jacob J. Burke, 2006-01-01 If irrigated production is to make a significant contribution to food security and economic growth in Sub Saharan Africa it will have to be re structured across the region as a whole This is the main conclusion of a study undertaken by FAO to analyse the drivers of demand for irrigated production in Sub Saharan Africa SSA Steeply rising commercial food import bills for staple crops across SSA are indicative of the level demand that is not being met from domestic production The increase of area under equipped spate irrigation for the whole of Africa over the last ten years amounts to 1 27 million

ha which is equal to about 127 000 ha a year This rate of growth has proved too low to have an impact on food import bills and buffer regional food security However within subregional trading groups there is scope for consolidation of market supply Irrigated production opportunities in SSA could be realised where natural resources and markets coincide but only through a great deal more attention to costs of production price formation effective water allocation mechanisms economically efficient water use and strong responsive institutions Enhancing Water and Food Security Through Improved Agricultural Water Productivity Tafadzwanashe Mabhaudhi, Vimbayi G. P. Chimonyo, Aidan Senzanje, Pauline P. Chivenge, 2025-05-14 This open access edited book provides a synthesis of knowledge on Water Productivity WP and its role in addressing global challenges related to water and food insecurity as well as climate change It explores how increasing WP can contribute to achieving several Sustainable Development Goals SDGs in the global South with a focus on SDG 2 6 and 12 The volume connects WP with emerging approaches such as the water energy food nexus sustainable food systems and the circular economy It features case studies critical analyses and meta analyses that bridge the science policy practice interface The book also delves into WP s relation to global priorities policies and the empowerment of vulnerable communities highlighting the non negotiable rights to water and food Governance policies and institutions are discussed in the context of enhancing WP in farmer led irrigation and scaling WP technologies The book also covers emerging methods for determining WP assessing linkages to nutrition health and well being and integrating climate change adaptation and mitigation strategies This is a guide for regional and international experts professionals and scholars interested in agricultural water management in the global south The book has the potential to inform multi regional and sectoral policies particularly in Africa and contribute to sustainable development through better resource management A History of Water: Series III, Volume 3 Terje Tvedt, Terje Oestigaard, 2016-08-31 Major changes in policy and management across the entire agricultural production chain will be needed to ensure the best use of available water resources in meeting growing demands for food and other agricultural products This new volume in the successful History of Water Series focuses on the African continent to address this key issue Humanity has its roots in Africa and many of our food systems developed there All types of agricultural production are present and the sheer size of the continent offers wide ecological variation from extreme desert to dense rainforest Drawing together leading international contributors from a wide variety of disciplines Water and Food offers new insights into the evolution of food systems from early hunter gatherers to the global challenges of the modern world

Annual Report of the Department of the Interior for the Fiscal Year Ending ... Canada. Department of the Interior,1909 Improvising Planned Development on the Gezira Plain, Sudan, 1900-1980 Maurits W. Ertsen,2015-11-04 The typical image of the Gezira Scheme the large scale irrigation scheme started under British colonial rule in Sudan is of a centrally planned effort by a central colonial power controlling tenants and cotton production However any idea l s of planned irrigation and profit in Gezira had to be realized by African farmers and European officials who both

had their own agendas Projects like Gezira are best understood in terms of continuous negotiations This book rewrites Gezira s history in terms of colonial control farmers actions and resistance and the broader development debate Handbook of Security and the Environment Ashok Swain, Joakim Öjendal, Anders Jägerskog, 2021-05-28 This comprehensive Handbook tackles the increasingly urgent problem of the impact of climate change on conflict and human security It analyses the ways in which scarcity of resources leads to food water and health insecurities resulting in population migration Featuring contributions from leading international scholars chapters cover how these contribute globally to societal insecurity and violent conflict in a growing number of regions An African Green Revolution Keijiro Otsuka, Donald F. Larson, 2012-12-22 This volume explores the usefulness of the Asian model of agricultural development for Africa where even before the recent world food crisis half the population lived on less than on dollar a day and a staggering one in three people and one third of all children were undernourished Africa has abundant natural resources agriculture provides most of its jobs a third of national income and a larger portion of total export earnings However the levels of land and labor productivity rank among the worst in the world The book explains Africa's productivity gap and proposes ways to close it by examining recent experience in Africa and by drawing on lessons from Asia Water for Food Water for Life David Molden, 2013-07-23 Managing water resources is one of the most pressing challenges of our times fundamental to how we feed 2 billion more people in coming decades eliminate poverty and reverse ecosystem degradation This Comprehensive Assessment of Water Management in Agriculture involving more than 700 leading specialists evaluates current thinking on water and its interplay with agriculture to help chart the way forward It offers actions for water management and water policy to ensure more equitable and effective use This assessment describes key water food environment trends that influence our lives today and uses scenarios to explore the consequences of a range of potential investments It aims to inform investors and policymakers about water and food choices in light of such crucial influences as poverty ecosystems governance and productivity It covers rainfed agriculture irrigation groundwater marginal quality water fisheries livestock rice land and river basins Ample tables graphs and references make this an invaluable work for practitioners academics researchers and policymakers in water management agriculture conservation and development Published with IWMI Report Canada. Forestry Branch, 1911

Historical Dictionary of the World Bank Sarah Tenney, Anne C. Salda, 2013-10-30 When it was founded back in 1944 no one could possibly have foreseen how the World Bank known more formally as the International Bank for Reconstruction and Development IBRD would flourish Today with 188 members it is by far the largest lender for projects in agriculture health infrastructure and many other fields in developing countries around the world with a budget of billions of dollars and a staff of more than 9 000 and its advice is usually heeded by both the developing countries which borrow from it and the advanced ones which contribute This second edition of the Historical Dictionary of the World Bank shows the substantial progress the Bank has made this mainly through the dictionary section with concise entries on its component institutions

related organizations its achievements in various fields some of the major projects and member countries and its various presidents The introduction explains how the Bank works while the chronology traces the major events over nearly 70 years Meanwhile the list of acronyms reminds us just who the main players are And the bibliography directs readers to useful internal documentation and outside studies Global Land Grabbing and Political Reactions 'from Below' Marc Edelman, Ruth Hall, Saturnino M. Borras Ir., Ian Scoones, Ben White, Wendy Wolford, 2017-08-15 When the 2007 2008 food and financial crises triggered a global wave of land grabbing scholars activists and policy practitioners assumed that this would be met with massive peasant resistance As empirical evidence accumulated however it became clear that political reactions from below to land grabbing were quite varied and complex Violent resistance outright expulsions everyday weapons of the weak and demands for better terms of incorporation into land deals were among the outcomes that emerged Readers of this collection will encounter a multinational group of scholars who use the tools of social movements theory and critical agrarian studies to examine cases from Argentina Mexico Guatemala Nicaragua Colombia Ethiopia Madagascar Mozambique Uganda Mali Ukraine India and Laos as well as the Rio 20 Sustainable Development Conference Initiatives from below in response to land deals have involved local and transnational alliances and the use of legal and extra legal methods and have brought victories and defeats This book was first published as a special issue of The Journal of Peasant Studies **Annual Report of the Director of Public Works to the** Record, Building Record and Sanitary Engineer, 1904 **Honorable the Secretary of Commerce and Police** Philippines. Bureau of Public Works, 1910 *Ioint Volumes of Papers* Presented to the Legislative Council and Legislative Assembly New South Wales. Parliament, 1913 Includes various departmental reports and reports of commissions Cf Gregory Serial publications of foreign governments 1815 1931

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isolation of genomic dna from sambrook et al molecular cloning manual vol 2 p 9 16 9 19 1 grind tissue in liquid nitrogen and then place in approximately 10 volumes of extraction buffer shake and submerge material and then incubate for 1 hr at 37 c 2 add protease k to a final concentration of  $100 \mu g$  ml gently mix the enzyme into the