

PRIZES FOR INNOVATION IN AFRICAN AGRICULTURE*

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This one-page summary describes a novel funding mechanism by which to accelerate the adoption of appropriate new agricultural techniques in Africa. Current expenditure on R&D for African agriculture is about one billion dollars per year, disbursed almost entirely through the public sector. The new mechanism proposed here would provide an additional one to ten million dollars per year to reward those activities that most successfully meet farmers' needs. Doing so would help improve the performance of existing programs and make additional investments more attractive, thereby accelerating the pace of productivity growth.

The proposal is for a specific way to deliver prize payments in direct proportion to measurable economic benefits generated by technology adoption. Prizes would be paid out as soon as enough data are available to measure those benefits. These data would be submitted by applicants to a prize secretariat, which would specify the kinds of information needed, do spot checks to verify accuracy, and then submit certified results to donors for disbursement against lines of credit allocated for this program. ‡

To begin, donors would commit their lines of credit, and then organizations or partnerships in the field would submit data on their most successful techniques, using controlled trials to estimate productivity changes, household surveys to estimate adoption levels, and market prices to estimate unit values. The sum of verified gains divided by available funding would determine the proportional rate at which the gains are rewarded. Subsequent rounds of prize funding might have a higher or lower payout rate, and thereby balance supply with demand.

Prize payments would complement the development of other funding mechanisms, by offering supplementary revenue and public recognition for both marketable products and public-domain services, in proportion to measured adoption and impact. The approach is feasible wherever donors want to accelerate the pace of innovation, but is particularly well-adapted to African agriculture where large gains from technology adoption are relatively easy to measure, but difficult for private firms or public agencies to capture.§

African farmers are in urgent need of new agricultural techniques, as rising numbers of very poor people have no choice but to try to feed themselves. Offering prizes would help complete the market for innovations that donors want to pay for, that researchers can develop, and that African farmers desperately need.

* This note is a summary of *Prizes for Innovation in African Agriculture: A Framework Document*, available online at www.earth.columbia.edu/cgsd/prizes. Other publications concerning this approach include "Research Prizes: A New Kind of Incentive for Innovation in African Agriculture" in *International Journal of Biotechnology* (in press, 2005), and also "Research Prizes", *AgBioForum* 6(1&2, November 2003): 71-74.

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‡ The basic methods by which applicants could document economic gains was taught in annual workshops across West Africa from 1994 through 2002. Over 60 African scientists completed over 30 case studies, using W.A. Masters (1996), *L'Impact Economique de la Recherche Agricole: Un Guide Pratique*, with spreadsheet exercises. (Bamako, Mali: Institut du Sahel).

§ W.A. Masters, T. Bedingar and J.F. Oehmke (1998), "The Impact of Agricultural Research in Africa: Aggregate and Case Study Evidence," *Agricultural Economics*, 19(1-2): 81-86.

The Advisory Board on Prizes for Innovation in African Agriculture

The prizes initiative is guided by an independent advisory board of prominent specialists in impact assessment and financing of agricultural research. The board was formally launched on October 11, 2004, with funding from the Adelson Family Foundation in New York City. Details are provided in the “Framework Document” and other materials posted at www.earth.columbia.edu/cgsd/prizes.

Members of the Advisory Board

Simeon Ehui	Economist, World Bank (formerly economist at ILRI, Ethiopia)
Robert Evenson	Professor, Yale University
Richard R. Nelson	Professor, Columbia University
Phil Pardey	Professor, University of Minnesota
Carl Pray	Professor, Rutgers University
Jeffrey Sachs	Director, The Earth Institute at Columbia University
Pedro Sanchez	Dir., Prog. on Tropical Ag., Columbia U. (fmr. DG, ICRAF, Kenya)
Brian Wright	Professor, U.C. Berkeley
David Zilberman	Professor, U.C. Berkeley

Endorsements of Prizes for Innovation in African Agriculture

Beyond the advisory board, many others have endorsed the broad concept of a new institution to award prizes for innovations in African agriculture, and have volunteered to advise donors on an informal basis. These individuals are eminent researchers and policy-makers from a wide range of backgrounds, including the former leaders of several national and international research services in Africa.

Endorsements of innovation prizes for African agriculture

Walter Alhassan	Consultant, Ghana (former Director General, CSIR, Ghana)
Julian Alston	Professor, U.C. Davis
Jock Anderson	Consultant, World Bank
Alain de Janvry	Professor, U.C. Berkeley
Bruce Gardner	Professor and Interim Dean, Maryland
Anil K. Gupta	Founder, National Innovation Foundation (India)
Michael Kremer	Professor, Harvard University
Oumar Niangado	Delegate for W. Africa, Syngenta Fnd. (fmr Dir. General, IER, Mali)
George Norton	Professor, Virginia Tech
Rob Paarlberg	Professor, Wellesley and Harvard University
Prabhu Pingali	Director, Ag.&Dev. Econ. Dept., FAO (fmrly at CIMMYT, Mexico)
Per Pinstrup-Andersen	Professor, Cornell Univ. (fmr Dir. Gen., IFPRI, Washington DC)
James G. Ryan	Consultant, Australia (former Director General, ICRISAT, India)
Eugene Terry	Dir., AATF, Nairobi (fmr. Director General, WARDA, Cote d'Ivoire)

Additional endorsements and members of the Advisory Board are welcome; for information please email to wmasters@purdue.edu.