



REPORT OF THE WORLD BANK RURAL WEEK 1999

The World Bank's Rural Week met from 24-26 March 1999 at the Westfields Conference Center in Virginia, United States. The meeting focused on the "political dimension of rural development." Over 400 Bank staff, including approximately 100 field staff, plus approximately 50 individuals representing governments and international organizations, including the Food and Agriculture Organization (FAO), the Inter-American Development Bank (IDB), the International Fund for Agricultural Development (IFAD), US Agency for International Development (AID) and the European Union (EU), participated in the event.

This meeting was the third such Rural Week. World Bank staff had previously met for eighteen "Agriculture Weeks," but the annual event slowly evolved towards rural issues. The title changed in 1997 to recognize and expand its consideration of the people and communities in rural areas in addition to agricultural issues.

Participants at Rural Week 1999 explored the political implications of the strategies recommended in the "Rural Development: From Vision to Action" program through a keynote speech and a series of parallel sessions addressing eight themes. The sessions explored privatization, decentralization, access to land, access to water and empowerment, among others. Eleven additional panels addressed technical issues such as agricultural education, rural finance, climate change, hazard management, biotechnology and food safety. In addition to the keynote address by Francisco Aguirre-Sacasa, Ambassador of Nicaragua to the US, participants gathered for speeches by Stephen Denning, Program Director, World Bank Information Solutions Group: Knowledge Management Unit, and Norman Borlaug, Nobel Laureate, "Father of the Green Revolution." Delegates also heard an informal progress report on the Bank's Operations Evaluation Department Review. An "InfoFair" was held on 24-25 March to showcase knowledge management tools of the World Bank and other organizations.

OPENING REMARKS

On Wednesday evening, 24 March, Alex McCalla, Director, World Bank Rural Development Department, welcomed over 400 participants to Rural Week, including over 90 field staff. He noted that representatives of several international organizations, including IFAD, UNDP and the International Atomic Energy Agency, and the private sector were also participating. He highlighted the meeting's theme, the political dimensions of rural development, and noted that the Bank's rural network was organizing the conference.

Ian Johnson, Vice-President, World Bank Environmentally and Socially Sustainable Development, highlighted the importance of the theme and said the planned discussion of political dimensions without the presence of the legal department testified to the way the Bank has changed – it is entering the real world where political dimensions count. He said the links that should be forged between the Bank's rural and social families would fit into the meeting's discussions. He also stressed the international dimension and said the Bank increasingly has to play a savvy role on the international stage, noting linkages with the World Trade Organization (WTO), the Convention to Combat Desertification (CCD), the Convention on Biological Diversity (CBD), and the Framework Convention on Climate Change (FCCC). He emphasized the need to learn what networks are for and how they work, and complimented the rural network's efforts. He concluded with a discussion of knowledge management, noting examples of Bank efforts to mobilize knowledge and not just money. He said the Bank can use knowledge to shape projects it does not finance as much as those that it does.

Stephen Denning, Program Director of the World Bank Information Solutions Group: Knowledge Management Unit, updated participants on developments within the Bank's Knowledge Management program. He highlighted achievements since the program was launched in 1996, including a shift in the perceived role of the World Bank in international development from the margins to the mainstream. He emphasized that while modern technology facilitates global information sharing, a sense of community is fundamental to its

success. He characterized knowledge sharing as an organizational culture shift from vertical to horizontal information flows and called on everyone to mainstream knowledge sharing.

KEYNOTE SPEAKER

On Thursday morning, 25 March, Alex McCalla officially opened Rural Week, noting trends that are necessitating political rather than technical or economic decisions for rural development, including privatization, globalization, decentralization and trade liberalization. Francisco Aguirre-Sacasa, Ambassador of Nicaragua to the US, addressed the question of politics and the development agenda. He defined politics as the struggle between interest groups or individuals for power and leadership and characterized politics as a competition for power through the use of wealth, social prestige, ideas and alliances. He emphasized one political rule – “the poorer you are, the weaker you are and the better you understand power politics.” Ambassador Aguirre-Sacasa stressed that development practitioners must factor politics into their work, recognize that the Bank is an agent of change and provide the best professional advice available. He noted the Bank’s powerful role as an idea disseminator and emphasized the importance of having a clear objective and strategy, and of understanding local cultures and power structures. He cautioned against “going native” or working in one country for too long, blind alliances and “knocking” the elite. He underscored that sustained accelerated growth is key to job creation and that income distribution will follow.

After Ambassador Aguirre-Sacasa’s presentation, one participant noted the need to avoid alienating elites and advised monitoring and pressuring them to promote technical and institutional progress. Another cautioned about the level of intervention versus facilitation in World Bank activities. In response, Ambassador Aguirre-Sacasa responded stressed the need to balance provision of advice with listening and challenged the Bank to find a way to help small-scale rural farmers secure access to credit. He stated that, ultimately, “development is a loser’s game” and the Bank’s job is to graduate its borrowers into winners.

PARALLEL SESSIONS

Results of Privatization: John Nellis, World Bank Private Sector Development Department, presented the results of several studies on privatization, all of which showed that ownership matters. For example, a 1994 study of 61 firms in 18 mostly OECD countries showed, on average, substantial increases in sales, profitability, investments and operating efficiency. A 1997 study of 10 loss-making firms in Bangladesh indicated that, after privatization, seven of the ten became profitable, unit labor costs fell and output, sales and capacity utilization increased. He concluded that most firms perform better after privatization, but highlighted the importance of policy. He noted that regulatory frameworks that address questions such as competition and natural monopolies should precede privatization.

Joel Joffre, Hydro Agri International, discussed efforts to build a fertilizer production plant in Cameroon. He said demonstrating the benefits of fertilizer application is not enough to establish a local market; farmers also need a system of credit. He identified difficulties in working with civil servants without an official agreement and stressed the need to remove subsidies and end taxes and foreign aid gifts. He also said fixed retail prices constrain private sector development and all systems of tendering prevent private sector integration in the country.

Alan Reade, Rhône-Poulenc Agro, discussed efforts to move from crop protection to crop production. He said agricultural stocks are at an all-time low, while population growth continues, and yields need to increase. He said crop protection needs to be improved while using fewer inputs. He noted the move from selling products to selling solutions to help farmers produce in a sustainable way. He also noted the need to help farmers organize, research markets, organize credit and integrate programs by partnering with different groups of private companies.

The Political Aspects of Decentralized and Community-Based Program Implementation: Norman Uphoff, Cornell University, International Institute for Food, Agriculture and Development, provided an overview of the evolution of community-based development and identified the sub-levels of the local level as: community/village, group, household and individual. He said community-based development involves collection action by the public and private sectors. He identified decentralization alternatives based on location and accountability of decision-makers, and further noted devolution alternatives between collective and private decision-making modes and purposes. He said politics exist wherever there is authority, but noted that people in “authority” do not always have power. He identified legitimacy as critical to effective authority and the exercise of power, and said authority, legitimacy, force, wealth, status and information are components of power. He said consensus is superior to majority rule because everyone is bound to comply and no one is forced. He said decentralization does not necessarily result in reduced central power and added that unless resource allocation is made accountable at the community level, elites ultimately retain control. He emphasized the importance of a “community paced” approach and identified deliberation and dialogue that engages locals as critical elements of actual decentralization.

Tom Wiens, World Bank Latin America and Caribbean Environmentally and Socially Sustainable Development Sector Unit, presented the case of decentralization of social politics in Mexico. He highlighted the program’s focus on local infrastructure, community choice and community participation and noted the extreme dispersion of population in Mexico as a challenge.

Rudolph Polson, World Bank Africa Capacity Building Unit, detailed how the Ghana Village Infrastructure Program used the Bank to build capacity in local governments. He drew attention to the villages’ limited capacity for decentralization, noting the lack of techni-

cal skills in existing local NGOs and of linkages among regional institutions. He identified leveraging of local resources, local empowerment, district and community institution strengthening, progress monitoring and mainstreaming through existing local government systems as key aspects of the program's district assistance strategy.

Ronald Zweig, World Bank East Asia and Pacific Rural Development and Natural Resource Sector Unit, discussed decentralization and local conflict resolution in Bangladesh and India. He highlighted the devolution of floodplain fisheries management in Bangladesh and the establishment of a floodplain management group that unites fishermen, NGOs, local governments, farmers and others together for community-based management of fisheries. In the case of India, he described conflict among island fisheries people over access to leases for fishing rights based on an auction system. He said the system precluded direct access to fish and resulted in illegitimate loans that resulted in capital recovery at the catch turnover point, leaving fishermen without income. The situation was resolved by reducing the lease fees, introducing formalized credit, improving fish prices and developing market delivery systems that circumvent intermediaries.

Towards Sustainable Intensification: the Farmer's Perspective:

Thomas Shaxson, Association for Better Land Husbandry, stressed that improved land husbandry can lead to improved soils and water, increased production and more secure livelihoods. Shaxson stated that rural people are the ultimate decision-makers, basing their activities on a complex interaction of climatic and landscape factors involving husbandry of the land, animals and crops. Advisors and the World Bank can only help to frame and influence such decision-making, and should not determine it. He provided examples from Kenya, Lesotho and Brazil regarding the successes of zero tillage and double-dug bed agricultural practices.

Manoel Pereira, a Brazilian farmer, reviewed experiences with no tillage practices over the last two decades. Tillage and plowing systems generally resulted in high levels of top-soil loss, extensive wear on machinery, and excessive application of fertilizers subsequently lost through soil erosion. Through zero-tillage practices, appropriate technology, use of cover crops for soil protection and elimination of burnings, production levels increased while fertilizer and herbicide inputs decreased with more efficient application. Water quality improved from less soil erosion; air quality improved with cessation of burnings; and overall terrestrial and soil biodiversity improved. He noted the importance of supporting small farmer conversion to such techniques through improved extension services, local farmers' groups and appropriate training.

Lauro Bassi, World Bank Rural Development Department, discussed a Bank project in Brazil using water microcatchments. He stressed the importance of farmer participation, coordination and, most importantly, interest in increasing vegetative soil cover and water filtration while reducing surface run-off and water pollution. He noted the proliferation of microcatchments in the region during the course of the project from 15% coverage to 80%, resulting in decreased sedi-

ment concentration, turbidity and fecal coliforms in the watershed. Additionally, productivity and farmers' incomes increased and costs of water treatment decreased. Finally, the number of farmers' organizations increased from two to fifteen, thereby supporting future sustainability of the innovations.

John Landers, Zero-Tillage Farmer's Bureau, stressed a supportive institutional framework including surrounding membership organizations including associations, land clubs, foundations, cooperatives and local commissions, as well as external agencies or institutions interacting with farmers' associations, such as the private sector and state agencies. Incentives for promoting rural agriculture could include small grants, research tax credits, reduced crop insurance premiums, cheap credit for machinery and awareness campaigns. Potential areas for Bank involvement include Global Environment Facility (GEF) zero-tillage projects, grants for carbon sequestration, cheap investment lines, technology grants, revision of land use capability assessments and grants for pasture rehabilitation.

During the discussion, participants asked whether the Latin American experiences were replicable in Africa, asked about problems regarding depletion of soil nutrients and organic matter, and stressed the importance of knowledge networks to communicate and share experiences.

Access to Land: Gershon Feder and Klaus Deininger, World Bank Development Research Group, discussed "Access to Land and Poverty Alleviation." They highlighted the importance of secure property and use rights. They said long-term leases provide security to the land user and the same incentives as land ownership, and can strike a balance between ideological problems with individual ownership and the benefits of ownership. Based on research in several countries, they said titled farmers have credit advantages and invest more in the land. Governmental instruments to improve access have included land sales moratoria, land ownership ceilings and tenancy reforms, but have not had much effect. They examined how land sales and rental markets could help and concluded that the potential benefits of land rental markets are large. The fixed rent contract is the "first-best" type of contract, but may not always be feasible. Regarding land reform, they said negotiated reform is preferable because it is cooperative rather than confrontational, encourages beneficiary, NGO and local government initiative, and builds markets rather than working against them. Noting that land is the key asset for the rural poor, they concluded that better functioning markets can help the poor and land reform is warranted in specific situations.

On the topic "Resource Access and Control in Drylands: Political and Ecological Perspectives," Robin Mearns, World Bank Latin America and the Caribbean Region, said some situations are not amenable to individual titling, such as certain indigenous groups' situations and dryland tenure where pastoral livelihoods predominate. In such situations, procedural issues are important, including access to information and legal advice on how to press claims and conflict management/arbitration mechanisms.

John Bruce, Land Tenure Center, University of Wisconsin, said many misdiagnosed pastoralist land use as being inefficient, unorganized and leading to a tragedy of the commons. Now many believe such use is opportunist, but efficient. Challenges to guaranteeing territorial rights include the dominance of national political and legal processes by representatives of sedentary peoples. He suggested that rural development strategies should affirm pastoralists' customary rights, clearly identify the areas concerned, pay attention to the legal status of valuable point resources, develop civil society organizations within the pastoralist societies and create mechanisms for communication among user groups. He said first-best options may not always be feasible, in which case one should assess the ability to arrest trends and the probable viability of the system in the future.

Christine Cornelius, World Bank Resident Mission in Nairobi, discussed a project with pastoralists in Kenya. The project has led communities through a process of self-definition of land use and management issues by defining discrete development areas, mapping out routes and identifying areas of mixed use and conflict. To achieve political support for pastoralists, the project has sought to raise community awareness and involved parliamentarians, key opinion leaders and advocacy groups. She said a key has been to adopt a cautious approach. During the discussion, one participant noted that the Convention to Combat Desertification addresses many of the issues that speakers discussed and provides a political framework for discussions with parliamentarians.

The Politics of Stakeholder and Institutional Mapping in Rural Development Programs: Cyprian Fishy, World Bank Africa Technical Family: Institutional and Social Policy, underscored the importance of identifying stakeholders and determining and addressing their real needs. Noting that development projects can change power dynamics and disrupt social cohesion, he said social assessment must be an ongoing process. Bruce Harris, World Bank East Asia Social Development Sector Unit, emphasized the importance of distinguishing between institutional structures and practices, and implications for project design. He highlighted the value of social assessment for identifying subtle social dynamics and noted the results of a social assessment of a forestry and conservation project in Papua New Guinea. The assessment found well-educated locals, rather than government or NGO facilitators, to be the key individuals for building consensus among cultural groups.

Stan Peabody, World Bank Europe and Central Asia Environmentally and Socially Sustainable Development Unit, noted project impact assessment, identification of problem areas, project monitoring and report verification as reasons for social monitoring. He presented an analysis of Kazakhstan's Agricultural Privatization project, which determined that government reports on the project did not reflect reality.

Roy Southworth, World Bank Europe and Central Asia Environmentally and Socially Sustainable Development Unit, highlighted the on-the-ground value of social assessment and how it can impact

project design. He detailed the findings of a social assessment of a land tenure reform program in Azerbaijan, including: variability of problems and priorities between communities; the importance of groups other than the project focus group; and the importance of gender. He underscored that the social assessment team must be part of the project design team, involved from the project's start and locally knowledgeable.

The Political Dimensions of Rural Poverty: Robert L. Thompson, World Bank Rural Development Department, addressed the importance of considering political realities along with calculations of economic optimality for development. He noted the need to compensate "losers" in policy reform to neutralize opposition and called upon the Bank to be sensitive to the political environment of development.

Eugenia Serova, University of Moscow, highlighted Russia's experience with political reform. She detailed a recent study that found the real income of rural population, including "in-kind" sources of income, to be higher than in townships and province capitals. She attributed this to political reform that abolished obligatory distribution of crops, allowing them to instead be shared amongst communities. However, political reform also resulted in a decrease in public goods such as education and health care in rural areas. She said production of food for sustenance provides economic security, but farming does not provide adequate monetary income. She noted challenges to rural populations, including a relative lack of skills due to migration to urban environments and over specialization of labor during centralization, leaving many with limited knowledge of overall farm operations. One participant recalled that the comparative well-being of the rural population must be considered within the context of the decline of Russia's economy.

Santiago Funes, Director of the FAO Rural Development Division, addressed political dimensions of policy reform in Latin America and the Caribbean. He said trade and financial liberalization, balancing of public finances, deregulation of markets and redefinition of governments' role are the concepts underlying the second stage of reforms in Latin America. Commenting on the conflict between growth capacity and social demands, he said reform has widened the gap between productive capacity of large and small landholders. He cited food security, poverty alleviation, competitive advantages and environmental sustainability as new considerations for agriculture. He emphasized the need to build social and political consensus to recognize rural development as a national priority. In closing, he identified reform compatible with the features of an open society and prioritization of the social and economic agenda as existing challenges.

Emmanuel Tumusiime-Mutabile, Ministry of Finance, Government of Uganda, discussed the experience of decentralization, agriculture reform and market liberalization in Uganda. He emphasized the danger inflation poses to rural incomes because agriculture producers cannot hedge against inflation. Despite currency fluctuations after the fixed exchange rate was abolished, farmers received real prices because policy makers were interested in agricultural reform. Ulti-

mately, the exchange rate reform allowed farmers access to higher market prices for commodities such as coffee. He identified liberalization of coffee markets as the most progressive and cost-free economic reform that resulted in remarkable poverty reduction. He said necessary rural reforms include access to water and primary health care, construction of roads and use of better seeds.

Access to Water: Ariel Dinar, World Bank Rural Development Department, asked "Are We Shooting Ourselves in the Foot? Efficiency, Equity, Water Policies and the Access of the Poor to Water." He noted Bank objectives in water policy, including efficiency, equity, revenue sufficiency and mechanisms to achieve the objectives, which include water pricing, water markets, and user-based water allocation and management. Access to water is measured by: power, location, price, timing and quality. He asked if water markets do justice for the poor, noting that small, poor farmers have a limited ability to compete with large farmers and pay more for water.

Ramon Lopez, University of Maryland, discussed "Water Resource Institutions and Poverty." He said increased water efficiency and efficiency in the use of most other natural assets appear to be highly and positively correlated. The common denominator for the relationship is the development or lack thereof of community institutions, which means water issues should be considered in the context of overall natural resource management efforts. He also cited empirical findings that rural poverty appears to be neither deeper nor more widespread in marginal and isolated areas than in regions more integrated into commercial agriculture and non-agricultural activities. Many community projects induced by NGOs and governments have failed, but projects that explicitly target village cooperation and legal and regulatory incentives have apparently been extremely successful. He suggested judicious external intervention, tenure security and legal rights and capacity building targeting the benefits of cooperation. A number of audience members questioned the finding that location and income were not related.

Mohan Munasinghe, World Bank Environment Department, spoke about "Sustainable Water Management to Help the Poor." He said if we want to look at sustainable water management we have to look at social and environmental, as well as economic, questions. He also stressed the relationship between water quality and quantity and the linkages between the micro- and macro-levels.

Raymond Peter, Irrigation Department and Command Area, Government of Andhra Pradesh, India, and Keith Oblitas, World Bank South Asia Rural Development Sector Unit, discussed "From Political Leadership to Systemic Incentives for Irrigation Sector Reform: The Case of Andhra Pradesh, India." In 1997, this region began an irrigation sector reform program that transferred management of irrigation to farmers. The project emphasized the participatory approach, including public consultations, consensus building with civil society and the media, and the creation of a sense of ownership. Results include management transfer, new legislation — the Andhra Pradesh Farmer's Management of Irrigation Systems Act — a tripling of water prices, a

new State Irrigation Sector Policy, and training and support for new farmers' organizations in their rehabilitation of the irrigation systems and in improving water management and agricultural production.

Empowering Farmers by Supporting Producers' Organizations: Marie-Helene Collion and Pierre Rondot, World Bank Africa Technical Family: Rural Development, stated that farmers' or producers' organizations can: respond to needs that public services do not; provide access to information, markets, credit and skills; and improve influence in decision-making. They can operate at many geographic levels and their function can be specialized or mixed and include advocacy, economic or local development activities. The Bank's comparative advantage includes supporting capacity building, influencing legal frameworks and facilitating access to information and communication resources. Politically, Bank involvement presents a paradox as governments borrowing funds will face challenges to their power through stronger farmers' organizations, yet government support is necessary to create an enabling environment and necessary institutional reforms. Currently, the Bank is working with the International Federation of Agricultural Producers (IFAP) to mainstream producers' organizations as a component in all agricultural service projects, as well as developing other resource tools.

Panelists Bruno Vindl, French Ministry of Foreign Affairs, Rashid Pertev, IFAP, Jean Delion, World Bank Africa Technical Family: Rural Development, and Mark Wilson, World Bank Rural Development and Natural Resources Sector Unit, discussed questions on the importance of farmers' organizations, political implications for their support, the impact of politics on their formation and the Bank's role. On their importance, panelists noted that farmers' organizations allow exchange of information and ideas; increase access to products and markets; develop mutual understandings and assert joint positions; build solidarity links at all levels; and increase power to make and legitimize their own decisions. Participants raised concerns regarding biases against the rural poor and towards larger commercial producers and the benefits that formal legal identity and recognition can bring.

On the political implications of supporting farmers' organizations, one panelist noted past efforts by governments to control such organizations to maintain weak rural populations and warned against government and NGO influence over producers' organizations for their own agendas. He further cautioned against the "flavor of the year" syndrome, where such organizations or techniques become a pet project or passing fad. Other panelists cautioned Bank movements away from technical issues and into social change and political issues, calling for social assessments and differentiation between production and advocacy oriented organizations. Participants warned against using producers' organizations to fill government responsibilities and stressed positive-sum solutions benefiting farmers and political leaders.

On how politics shape support for farmers' organizations, panelists noted the need for governments to create the right legal and institutional conditions, provide appropriate services and training and foster dialogue on their own terms. Participants stressed that empowerment

not be an end in itself and asked how the private sector could encourage the development of commercial farmers' organizations. On the role of the Bank, panelists and participants proposed developing pilot projects, promoting success stories and using lending conditionalities to influence other government agricultural funds.

Agriculture Education: Charles Maguire, World Bank Rural Development Department, noted complacency, isolation, inbreeding, declining teaching standards, lack of accountability, missing practical skills and failure to understand the real world outside academic institutions as factors that have led to deteriorating relevancy of agriculture education. He cautioned against supporting weak programs, working from a single sector's perspective or disregarding demand for core knowledge and skills for production agriculture.

Anthony Willet, World Bank Rural Development Department, presented an analysis of agriculture education over the last decade. Noting that agriculture education has "fallen through the cracks," he said the study found that global economic and political changes have rendered former agriculture education approaches less effective, that support for agriculture education has decreased, and that agriculture program graduates are not meeting labor market requirements. He noted the need for new agriculture education and training (AET) systems that are demand-driven and new trends to AET systems that take a sector-wide approach and focus on long-term capacity building. He called for collaboration with other donors to improve agriculture education.

Samuel Adjepong, University of Cape Coast, Ghana, highlighted an innovative training program at the University of Cape Coast. The program is designed for mid-career agriculture practitioners that hold a diploma or certificate and wish to update their knowledge and skills. He noted benefits from the program, including increased interaction between academia and agriculture practitioners, increased flexibility in the academic program and increased university cooperation with other universities, NGOs, research institutions, ministries, farmers and policy makers. He emphasized the importance of translating complicated concepts and terms into language accessible to farmers. In the ensuing discussion, one participant said education must be considered as part of research and extension. Another noted the lack of technical skills and women in development. In closing, Maguire said discussions on how to improve agriculture education systems must become part of the dialogue at the country level. He said drawing attention to the need for agriculture education will create the opportunity to respond to a country-based decision that action must be taken.

Enabling Women's Participation in the Development Process: Politics or Policy? Lynn Brown, World Bank Rural Development Department, said an enabling environment ensures that everyone has an equal opportunity to participate in the development process and noted that no country has yet perfected such an environment. She said the international agreement on the elimination of discrimination against women provides an entry point for gender projects. She high-

lighted the efficiency gains for projects that incorporate gender issues from the start and suggested that participants contact the thematic team on gender for ideas on how to incorporate gender into Bank projects.

Gita Gopal, World Bank Africa Technical Family: Human Development, discussed a project in Ethiopia. Questions asked during project design included: what are the gender dimensions; how does the community organize itself; what are the procedural rules of participation; what keeps women from participating meaningfully; what are the rules for the allocation of resources; and are women represented? The project is currently identifying the type of informal associations that can be tapped, examining how these associations can access funding, and finding and training intermediaries to reach remote areas and bring those associations together.

Carmen Diana Deere, University of Massachusetts, presented the results of a study on women's access to land through land reform in 12 Latin American countries. She found significant gains in terms of women's access to land. She attributed the results to the fact that the neo-liberal reforms coincided with the growth of the women's movement and their ability to affect legislation and, most importantly, the move towards titling land to couples.

Issues raised during the discussion included the importance of respecting local cultures and the benefits of free-standing WID (women in development) projects versus Bank efforts to mainstream gender issues. One participant said the AIDS crisis brings to the forefront the negative effects of some culturally accepted behaviors. Another stressed that the Bank can provide education, but individual countries and cultures should decide whether, what and how to change. Another suggested that changing things for women sometimes requires male education.

Recent Developments in Rural Finance: Jacob Yaron, World Bank Small Enterprise Development Unit, provided an overview of Bank financing for rural development projects. He stressed the need to identify the Bank's comparative advantage in rural finance lending, especially as existing lending is becoming increasingly vague in view of recent global and national financial trends. He noted a bias towards urban policies, including: low prices for agricultural products; disproportionate budgetary allocations for urban infrastructure, health and education over rural areas; usury laws discouraging small and high-risk loans; underdeveloped legal and regulatory provisions for land titling and collateral; and excessive taxes on agricultural exports. He suggested that the Bank focus on: large rural projects with high likelihood of influencing rural financial markets; small projects showing demonstration impacts and testing new instruments; and state-owned agricultural development banks. He stressed the need for political will to eliminate urban bias policies, wean farmers from concessional borrowing terms, enhance loan recovery, set appropriate lending policies, eliminate subsidy dependence and contain administrative costs.

Carlos Cuevas, World Bank Africa Regional Office, reviewed programmatic discussions for the World Bank's Africa program. The region faces a dispersed population, poor transportation and communi-

cation networks, lack of acceptable collateral under existing legal frameworks, little self-financing capability and adverse financial sector environments. The three main points of the approach strategy are: bringing the commercial system closer to rural clientele through improvement of regulatory frameworks, introduction of risk reduction mechanisms and development of improved collateral substitutes; bringing rural clientele closer to the commercial system through support for income-generating activities through direct transfers, not credit lines; and linking rural finance to non-financial activities. Action areas include reforms and improvements of regulatory frameworks, as well as capacity building to broaden outreach and enhance sustainability of rural finance for financial institutions.

Rodrigo Chaves and Kathryn Funk, World Bank Europe and Central Asia Regional Office, noted the pressures of the transition from central planning to markets including: macro-economic problems such as inflation and monetary policies; financial sector problems such as bank instability and lack of distribution networks; and agricultural and rural sector problems such as bankrupt firms, high transaction costs, high and real perceived risks, inability to use assets as collateral, debt overhang and subsidized credit. They also discussed a range of projects in the region involving non-bank formulations, including group-based/mutual guarantee arrangements, temporary non-bank institutions and NGO micro-credit programs. Lessons learned include promoting participatory credit delivery based on local context and tradition, innovative rural and micro-finance programs that are resilient to systemic weaknesses and political and civil crises, and early emphasis on financial sustainability and the institutional environment.

The ensuing discussion addressed the appropriateness of consumption loans for the rural poor and possible application of micro-credit schemes in Africa, especially as efforts to reform the policy environment could take a long time. One participant questioned the strategy's ability to close the gap between the commercial sector and rural farmers who are not producing crops for sale. Another noted that the presentations tended to focus on financial and market systems, while losing sight of using micro-finance for poverty reduction.

Hazard Management: Frederick Kringold, Virginia Polytechnic Institute and State University, highlighted an approach to hazard management comprised of prevention, response mechanisms and safety nets. He highlighted the work of the Bank's Disaster Management Facility and proposed the establishment of a disaster management network. He noted a more proactive mentality towards disaster management resulting from the realization that social and technical solutions exist and emphasized disaster risk reduction as an integral part of sustainable development and civil society involvement. In the ensuing discussion, one participant noted that those who pay for prevention and those who pay for mitigation are rarely the same, leaving little incentive for investment in disaster prevention. Kringold said that, while mitigation costs are often 3-5% of original construction costs,

modifying existing structures is often very costly and the "post disaster windfall" of relief aid provides an incentive to continue hazardous or risky behavior.

Dr. Yudhbir, Indian Institute of Technology, addressed natural hazard risk management in India. He highlighted the Institute's work on natural resource data management systems, landslide hazard mitigation and other areas. He cited limited communication with policy makers and lack of knowledge on the economics of prevention as barriers to hazard management. He detailed difficulties in achieving the objective of the International Decade on Natural Disaster Reduction, including overlapping jurisdictions, lack of incentives and funding, and an apathetic political atmosphere. He called for awareness raising, risk analysis, proper construction zoning and infrastructure development, enactment of laws, and the enlargement and reinforcement of disaster prevention systems.

Mark Bulmer, National Air and Space Museum, Center for Earth and Planetary Studies, addressed the topic of geohazards, including volcanic hazards such as acid rain, volcanic gasses, lava flows, atmospheric effects and tsunamis. He underscored the importance of information on the frequency, duration, magnitude, energy, physical effects and areas affected by geohazards and emphasized that information must be site specific. He noted complex interactions among geohazards and said the peak intensity, event horizon and temporal and spatial consequence must be considered simultaneously. He underscored the value of applying geological records as a key to both the past and the future.

Jacob Yaron, World Bank Small Enterprise Development Department, proposed an alternative form of agriculture insurance, rainfall insurance. Noting that free and subsidized insurance is problematic because it is not equitable and encourages continued risky behavior, he explained that the objectives of rainfall insurance are to: smooth income and consumption patterns; shift production from low-risk/low-yield to high-risk/high-yield; increase and improve the terms of agricultural loans; and promote a market for risk. He envisioned a center that would provide information about rainfall and expected results on crops as well as sell insurance certificates. Rainfall insurance is advantageous in that it: could be sold to anyone at risk; has low administrative costs; and would create secondary markets for certificate trading. He noted obstacles to rainfall insurance: a lack of trust that the contracts will be honored; inability to convince low-income clients to buy insurance; sale of certificates by intermediaries at a mark-up; and government provision of invariable disaster relief. One participant asked how rainfall patterns could be reliably used to predict crop production and another asked how governments could not provide rainfall disaster relief.

Biotechnology: What Does It Mean for the Bank?: Cathy Ives, Applied Biotechnology Support Project, Michigan State University, noted private sector dominance in biotechnology research and stated that developing countries should recognize this and expect to develop collaborative partnerships. She stressed that such co-development is

preferable to simple technology transfer. Increasing biotechnology research and application is not just a technological matter, but requires an enabling commercial and regulatory climate. Major obstacles include the lack of: knowledge among policy makers; national enforcement mechanisms; trained personnel; appropriate technology; infrastructure; institutional structures; and financial resources. She noted options for donor investment, including: support for technical training, linking training to policy initiatives and private sector partnerships; support for programs with conducive policy environments; regional harmonization of policy environments; and development of related skills such as intellectual property rights (IPR) management, negotiation skills, and biosafety and risk assessment tools.

Cyrus Ndiritu, Kenyan Agricultural Research Institute, stressed the challenges that Africa faces in terms of technological and people skills, as well as biotechnology's potential to improve quality of life. He emphasized the need to assess where new technologies can be employed and how developing countries can leapfrog technological development using the advances of others. He cited specific collaborations with Monsanto, the University of California-Davis and others with regard to biotechnology problems specific to Kenya. He recommended that the Bank develop a clear vision on biotechnology to identify priority areas for assistance and to support such technologies through appropriate regulatory and legal frameworks, training and equipment provision.

Peter Gregory, World Bank Rural Development Department, introduced a draft options paper for the Bank on agricultural biotechnology in rural development activities. He recommended looking beyond genetic engineering, and stressed biotechnology's potential for increasing productivity and reducing inputs, conserving biodiversity, improving health and nutrition, and diversifying agro-industrial products. He said the Bank needs to: improve its strategic, technical and regulatory capacities; enhance staff awareness and capacity; develop funding options for staff and clients; and weigh the opportunities and risks of biotechnology-related issues. Guiding principles for the Bank could: emphasize capacity development; build country-specific strategies; focus on rural poverty alleviation; build public sector capacity; provide technological alternatives for farmers; and engage in multi-stakeholder dialogues. He noted options for Bank support, including building capacity at the global and country levels, supporting the Consultative Group on International Agricultural Research (CGIAR) system, integrating biotechnology with existing mainstream research, and fostering communication and collaboration.

Participants raised questions regarding biotechnology's impact on sustainable agriculture and cautioned against application without appropriate caution and safeguards. Regarding IPR, one participant suggested increased public sector patenting to ensure availability of knowledge in the public domain. Others raised concerns about the appropriateness of the current IPR regime for biotechnology innovations and traditional knowledge. One participant noted that strong IPR protection is not a necessary condition for private sector collaboration

given the private sector's concern with maintaining competitiveness, and another suggested looking at the impact of the power and resource concentration in the biotechnology industry.

Political Dimensions of Food Safety, Trade and Rural Growth: Kevin Walker, Inter-American Institute for Cooperation on Agriculture (IICA), presented an overview of problems and actors on food safety issues. He said specific challenges to reducing foodborne risks and participating in international trade include the need to coordinate health and agricultural sectors and to develop national food safety systems consistent with the WTO agreement on Sanitary and Phytosanitary Measures (SPS). He said an improved understanding of SPS is needed, and action steps include updating legislative and regulatory authorities and introducing self-financing mechanisms that allow national systems to respond to evolving trends.

Michel Siméon, World Bank Africa Technical Family: Environment, discussed "Food Safety and Quality Management." Quality control systems include total quality control (ISO 9000 series), which mandates that an organization defines appropriate quality standards, documents its processes and proves its compliance. He said this system focuses on traditional manufacturing businesses without guaranteeing high-quality products. Hazard Analysis and Critical Control Point System (HACCP) tests quality at a number of points in the manufacturing process and provides a more structured approach than traditional procedures. Siméon proposed that the Bank help client countries prepare to influence international negotiations and standards setting and to adapt ISO 9000 and HACCP to local conditions.

John Farquhar, Food Marketing Institute, described his role in developing a strategy in Guatemala to minimize foodborne illness in raspberries after they were banned for import to the US. The project considered environmental contaminants at the source, public health requirements for people in the field and food processing and handling practices. He noted the positive intervening role that the Guatemalan Ambassador to the US played. Farquhar said that a motivation for the project was the concern that blackberries, a bigger crop, might also be banned.

Steven Wilson, US National Oceanic and Atmospheric Administration - Fisheries, described an inspection training program his office offers, on a fee-for-service basis, regarding different issues and principles of seafood production and quality. He said training alone is not enough and recommended follow-up visits, identification of contacts for further assistance, expiration of certificates to ensure continuing education, and more in-depth training and experience for regulators.

Luis Coirolo, World Bank Latin America and Caribbean Environmentally and Socially Sustainable Development Sector Unit, discussed an animal and plant protection project in Brazil. The initial phase was highly centralized and did not control or eliminate foot and mouth disease in cattle. He said changing political variables, including Brazil's entry into MERCOSUR and signing trade agreements under the WTO, created a window of opportunity for project reformulation. One change was that the federal government only addressed activities

that required certification by law or international agreement. He cited lessons learned, including the need to pay attention to changing political circumstances that permit new alliances and to carefully distribute functions and responsibilities among various government levels. The project also demonstrated the importance of engaging stakeholders directly in the delivery of services and support for enforcement/compliance.

Lynn Brown, World Bank Rural Development Department, raised ethical concerns with raising export standards for the benefit of American and European consumers while domestic consumers receive food subject to lower standards. She also expressed concern about developed countries' higher standards for imports than for domestically produced products. Cees de Haan, World Bank Rural Development Department, noted ongoing work to develop different models for different areas and a policy paper on trade-offs between public and private roles and production for domestic and international consumers.

International Perspectives: Gary Howe, IFAD, said that, despite the knowledge that agriculture is the core of rural economies, it is increasingly overlooked. He identified high transaction costs in accessing markets and the existence of gross asymmetries in market power as critical issues that have received inadequate attention. He said the increased emphasis on education and health have "passed the baton" from the agricultural to the social sector and noted that this approach fails to acknowledge the rural poor as producers. He said micro-finance as understood today is not adequate to address the lack of capital and access to capital has not received enough attention. He added that the use of diminutive words like "micro" often lead to an economically dismissive attitude. He called for efforts to facilitate conditions for private market exchanges, noting that transaction costs for development of linkages between large- and small-scale producers can be reduced by investing in communication, transportation and organizations.

Berhe Costantinos, UNDP, said most previous development theories did not address the needs of the poor and questioned what a new paradigm would look like. He highlighted the current recognition that responsibility must be returned to communities, which would require significant capacity building. He noted several declarations by African Heads of State pointing to the need for African governments to take responsibility, and remarked that development has never been promoted from the outside. He posed a series of questions, including: how will people be enabled and empowered; how is a responsible state achieved; and how can African resources be employed for African development?

Santiago Funes, FAO, noted the more cooperative relationship that has formed in the last five years between the World Bank, IFAD, UNDP and FAO. He also described the Administrative Committee on Coordination (ACC) network on rural development and food security, which involves 20 UN agencies. It began in April 1997 to provide follow-up to the World Food Summit and other summits with coordinated action at the country level and serves as a tool for identifying resources

and projects. The FAO provides the secretariat for the network, which encourages national level thematic groups to interact with other stakeholders and to design projects and policy. He hoped future networking would take place at the regional and sub-regional level.

Community-Based, Water Resource, Inland Fisheries and Aquaculture Development Experience from Asia: Theodore Herman, World Bank Rural Development and Natural Resources Sector Unit, discussed the impacts of Bank water resource management projects on fisheries management. Specific areas of potential impact include: local economic benefits, channel dredging, irrigation and drainage canals, multi-purpose reservoirs, flood control, salinity control, effluent treatment and flow augmentation. He stressed that development and irrigation options in areas with regular flood cycles can have significant socioeconomic impacts on rural communities dependent on floodplain fisheries. Citing the development of a flood control, drainage and irrigation project in Bangladesh, he explained how planning overlooked factors of river and floodplain productivity, loss of protein sources in local diets, impacts on biodiversity, existing irrigation systems and infrastructure, fish management needs and options for segmented or partial floodplain management. He stressed the need to study development alternatives through floodplain hydrology models, production surveys and socioeconomic impact analysis of different alternatives.

Benson Ateng and Imtiazuddin Ahmad, World Bank South Asia Rural Development Sector Unit, presented a Bangladesh project on community-based inland fisheries development. Given the importance of fish production for the rural poor, the project sought to address declining fish production and threats to aquatic biodiversity from widespread development of flood control schemes, changes in land use patterns, population pressure on fish resources, and reduced water flows and access routes for fish migrations. The government is increasing involvement and responsibility of local communities in fisheries management with specific focus on augmenting production through community management and stock enhancement, conservation of aquatic resources and rehabilitation of degraded habitats. Using the example of the Borobila floodplain, they stressed that success depends on the use of appropriate small-scale sections of floodplain (1500 hectares), secure long-term access to water resources, support by local NGOs, organized involvement by fisher groups and collaboration between partners including community, government and NGOs.

Harideep Singh, World Bank South Asia Rural Development Sector Unit, focused on the political implications of inland fisheries projects in India, characterized by overfishing, skewed government access policies favoring private entities over fisher cooperatives, limited attention to community participation in management and problematic credit policies for fisher cooperatives. Additionally, he emphasized problematic policies related to differential access rights to fish resources among communities, calculation of royalty payments

impacting reporting and loan repayment, and the politics of competition over water resources by end-uses, such as irrigation and fish harvesting.

Ronald Zweig, World Bank Rural Development and Natural Resources Sector Unit, briefly reviewed case studies in Indonesia and China. The Indonesian Bank project provided families relocated due to dam construction with access to fish cage plots and equipment to generate income. He noted the benefits of direct and indirect employment and increased fish production, while highlighting long-term challenges to sustainability from exceeding the reservoir's carrying capacity for such fish cages in addition to upstream water pollution. He emphasized the importance of the political context and highlighted different practices for integrated water resources management in the Chinese case. Noting the rapid development and output of the country's aquaculture production, he stressed a number of factors contributing to its success. Clear ownership and planning systems were effective with mainstreaming at all geographic levels. He also highlighted farmer involvement in project design and identification of benefits for rural communities. Overall, planning took a comprehensive approach recognizing appropriate integration of different water resource users. Finally, such planning built on an effective education and training system, strong technical capacity and the integration of modern techniques with centuries of experience from traditional practices.

Rural Infrastructure: Bachir Souhail, World Bank Africa Technical Family: Rural Development, discussed a rural infrastructure project in Guinea. This cross-sectoral project developed partnerships with IFAD, FAO, NGOs and bilateral donors, used pilot programs and worked with local governments. He identified good governance, true partnership, transparency, accountability, contractualization and community empowerment as key principles. Challenges involved learning to work cross-sectorally with other colleagues and to use a new work approach.

A panel then fielded comments on this project. Panel members noted that the old style project was heavily centralized, creating accountability and other problems. The new style does not just consult communities but empowers them with money. If local governments are truly to be empowered, they should decide which projects to undertake. To maintain projects, transfers from the center may be most appropriate given that central governments often are best placed to collect taxes. In response to questions about quality control, participants learned that the projects have been simple and standards have not been difficult to meet. Capacity building has played an important role in the project and some resources have been allocated to central agencies to fund a local government liaison and the establishment of a means for recourse if communities feel wronged.

Participants then heard four presentations on specific infrastructure sectors. Jennifer Sara, World Bank Water and Sanitation Division, spoke about "Rural and Small Town Water and Sanitation" projects. Key lessons included: following Bank project rules contributes to project success; cost-sharing and institutional arrangements are impor-

tant; some user association is necessary; a social intermediation process is needed; local supply of goods and services is important; and there should be access to long-term technical assistance. She also highlighted the need for a consistent Bank approach, especially at the policy level.

Moctar Thiam, World Bank Africa Technical Family: Transport, spoke about a rural transport project in Zambia. This project used a collaborative framework involving rural transport, a social fund and sector investment. Key outcomes included increased awareness among policy and decision makers of rural isolation, clarity of road ownership and different arrangements for district and community roads.

Paul Bermingham, World Bank Telecommunication and Informatics Division, discussed rural communications. He noted that: rural communities are willing to pay for communications; solutions must be responsive to the unique needs of communities; policy, regulations and market structures need to be in place to provide services; and partnerships need to be built with the private sector and user groups.

Arun Sanghvi, World Bank Africa Technical Family: Energy Unit, discussed rural energy issues. He said the Bank traditionally has worked on power sector reform. More recently, it has worked on rural energy projects to provide household access to energy and projects that respond to environmental concerns. He called attention to the Bank's fund for renewable energy and efficiency application projects.

Philippe Dongier, World Bank Water and Sanitation Division, noted an initiative that will examine country-level attempts to improve consistency between sectors, and welcomed suggestions for countries to be included in the study. He also noted knowledge products being produced, including an examination of circumstances when single-sector projects are preferable to a multi-sectoral approach. In response to comments, one speaker suggested that policy reform can address bilateral donors' efforts to condition aid.

Forestry Issues and Reforms: Hang Sun Tra, Coordinator of the Cambodian Secretariat of the National Committee to Manage and Execute Forest Policy, highlighted forest policy reform in Cambodia. He cited unsustainable forest management, timber theft, unrealized revenues and loss of government credibility as forest policy problems in Cambodia. He said the political context includes an unstable coalition government, civil war, political interference in the Department of Forestry and Wildlife's control over resources, the role of the Ministry of Environment in parks and protected areas, and the independence of provincial authorities and regional military. He said catalysts for policy reform were IMF pressure for increased forestry revenues, NGO pressure, and the World Bank/UNDP/FAO Forest Policy Assessment (FPA), which identified an annual loss of \$100 million in forest revenue. In response to the FPA, the government created a national committee to manage and implement forest policy and conducted studies, which recommended, *inter alia*: new forest law and model concession contracts; forest concession management; illegal logging control through monitoring, suppression and log tracking systems; cessation of processing plant investment; and development of reforestation pro-

grams. He noted that forest crime monitoring, legislative reform, regional symposia on forest law enforcement, a Bank financed pilot project and a forest policy statement and program as part of the IMF program are the necessary next steps.

Johan Lejeune, FAO, highlighted his work as a consultant for the Cambodia FPA. He noted the FPA finding that only 10% of all harvests were claimed and taxed. William Magrath, World Bank European and Central Asia Environmentally and Socially Sustainable Development Sector Unit, noted that the program is a work in progress and emphasized lessons learned, including the importance of setting priorities, the quality of technical assistance, and the need to not outpace the client. He highlighted the politics at play in Cambodia amongst national parties, government donors, NGOs, international donors, consultants and the Bank. Jim Douglas, World Bank Rural Development Department, asked what factors motivate governments to undertake an FPA and why the Bank would want to get involved. He suggested that the political instability in Indonesia could create opportunities for policy reform.

In the ensuing discussion, one participant suggested grassroots efforts to address illegal logging as an alternative to government enforcement. Another noted the recent logging ban in China and asked how it might impact forests in Cambodia. He also noted that high deforestation rates result from governments' inability to enforce policies. One participant noted the role projects, such as an FPA, play in publicizing issues and applying international pressure.

Climate Change and Poverty: Bob Watson, World Bank Environment Department, noted that climate change is primarily human-induced with significant contributions from land use practices, including unsustainable agriculture and deforestation. He added that changes in climate will have major implications for complex ecosystems including effects on agricultural productivity.

Michel Siméon, World Bank Africa Technical Family: Environment, reviewed the state of knowledge of global warming, noting temperature rise and changes in precipitation levels over the last century from increasing carbon concentrations. He highlighted the complex relationship between climate change and other environmental issues such as land degradation, forestry, biodiversity and food supply. He reviewed modeling efforts to project future CO₂ levels, global temperature and sea level rise, precipitation changes, demands on water resources and crop yields. He noted that, while developed countries are mainly responsible for the problem, developing countries are more likely to experience adverse impacts, especially in the agricultural sectors in Africa, the Middle East and India.

Arne Dalfelt, World Bank Africa Technical Family: Environment, addressed coping with impacts of increased climate variability on agriculture using climate forecasting and new technologies. He said adverse impacts on agriculture will either stem from drought or excessive flooding along with effects on growing seasons, animal husbandry practices and pests and that social repercussions could include migra-

tions, increased poverty and resource conflicts. He emphasized the need to integrate climate risk and adaptation strategies in macroeconomic, sectoral and project work as well as in risk assessments. The Bank needs to adapt its agriculture and water management activities, liaise with climate research institutes, help develop mitigation and adaptation strategies, and facilitate technological and financial transfers.

Lasse Ringius, World Bank Africa Technical Family: Environment, spoke on using carbon sequestration to enhance agricultural productivity while mitigating climate change. Ringius focused on carbon pools and current rates of depletion in Africa mostly through deforestation and bio-mass degradation. At the farm level, strategies can include zero-tillage practices, residue and water management, agroforestry and crop rotations, which can benefit agricultural productivity by rebuilding depleted soils. Ringius noted agro-forestry's potential for above- and below-ground sequestration, but stressed that planting trees should not be a substitute for crop production.

Charles Feinstein, World Bank Environment Department, spoke on the role of rural energy in decreasing carbon emissions. He noted the relative insignificance of developing country populations' global carbon emissions. The promotion of alternative energy sources such as solar panels and fuel cells is hampered by the dilemma that such technologies will only be more affordable with increased markets, but markets cannot expand until they become more affordable. Rural populations could promote demand, especially with financial assistance from the GEF and the Kyoto Protocol's Clean Development Mechanism.

Discussant Francois Falloux, World Bank Africa Technical Family: Environment, noted four priorities for climate change efforts: adjustment to climate change variability; use of carbon sequestration opportunities to improve soil and forest management; coastal zone management against sea level rise; and exploitation of new opportunities in the global carbon market. World Bank priorities for action include: assistance in reviewing country responses to climate change; capacity building and knowledge management; promotion of pilot projects and adaptive research; and methodologies, indicators and monitoring. Discussant Christian Pieri, World Bank Rural Development Department, stressed further Bank work on the potential of carbon sequestration in soils.

Discussion centered around permissible sequestration activities in land use and forestry activities under the Kyoto Protocol and the role of developed countries in promoting domestic reductions versus offsets in developing countries. Participants also discussed carbon sequestration in forests and agricultural systems, the potential of reforestation and new agricultural techniques, and the relation of El Niño to climate change and carbon sequestration.

GUEST SPEAKER

On Thursday evening, 25 March, Norman Borlaug, Nobel Laureate and "Father of the Green Revolution," provided a brief history of agricultural research in the US and its extension to other countries from the 1940s to the present. He cited initial developments in Mexico, funded by the Rockefeller Foundation, to train a new generation of agricultural scientists and improve crop yields. Through cultivation and selection of crop varieties and application of fertilizers, a process of maximizing crop yields was developed and such "green technology" was exported to developing countries in the 1960s. Commenting on current debates on organic versus inorganic and bio-engineered crops, he cited growing population pressures, the ability to increase crop yields two- and three-fold without increasing the amount of cultivated lands and the fact that there are simply not enough organically-produced nutrients to feed six billion people. Finally, Borlaug highlighted his work with Sasakawa-Global 2000, an agricultural extension program in Africa designed to assemble data on plant varieties, soil fertility, moisture and other agricultural information to provide to developing countries.

In response to a question regarding low-water-intensity crops, Borlaug reported that there are ongoing programs looking for drought resistant crops and those that use less water and highlighted the need to use water more efficiently. In response to a question about the potential for no-till systems in Africa, he said some promising work has been done on small plots. He added that the infrastructure in Sub-Saharan Africa, specifically the cost of bringing in fertilizer and transporting food to the cities, creates a big bottleneck. He also noted the need for more and better legumes that have high yields and fix nitrogen in the soil. In response to a question about the role of commodity price stabilization programs, he said the lack of purchasing power in developing countries and overproduction in others creates disequilibria in the market. One audience member asked if there are strong technical arguments against bioengineering. Borlaug said the answer differs if you are a hungry nation or have a surplus market. He asked if it would take another food crisis to wake up on this issue.

CLOSING PLENARY

Gert Van Santen, World Bank Rural Development, Water and Environment Group, reflected on the meeting's discussions of politics and their relevance to rural development and stated that political considerations are and have always been part and parcel of the Bank's work. Project selection and Country Assistance Strategies (CASs) essentially involve political choices, but the Bank can no longer hide such decisions behind economic analyses and technical recommendations. He reviewed the results of the polling of Rural Week participants on the political dimensions of rural development, which found that many believe that political considerations have a significant impact on project implementation and sustainability. The results recommended staff training and expertise in political analysis, cultural awareness, participatory and interpersonal skills, conflict management and social assessments. With regard to the Bank's approach to political consider-

ations in rural development, respondents suggested, *inter alia*, that the Bank: not avoid equity and human rights issues; permit staff specialists to address political issues; recognize the need for longer time horizons when dealing with political problems; actively promote participatory project preparation, such as through partnerships with NGOs and communities; and include political considerations in sector work, project design, risk assessments and CASs. Finally, he highlighted a number of Bank rural development projects discussed during the meeting as evidence that the Bank is a crucial part of social, and thereby political, change.

Discussion centered around the relationship of the Bank's agricultural sector to its rural development theme, with one participant affirming their complementarity, stating that agriculture is an integral part of rural development. The rural development network may not have all the skills or tools for such development, but it can play a key role in coordinating strategic discussions with other Bank sectors, such as telecommunications, water, transport and energy. Another participant emphasized the need to focus on the implications of biotechnology, as it is the next large development on the agricultural horizon. Finally, one discussant used an example from Morocco to stress how the Bank should involve all of its sectors in an integrated approach to rural development.

John Heath, World Bank Operations Evaluation Department, presented the results of a survey taken at Rural Week. He said participants view project design, implementation and partnerships more positively than they did last November, but more work is needed on CASs, policy dialogue and economic and sectoral work.

Alex McCalla then discussed the state of rural development. He highlighted progress in thinking more holistically about rural development and in forging links with other sectors, although progress should be made to link with education, health and nutrition. He said there is a continuing interface between the urban and rural sectors and the "Rural Development: From Vision to Action" strategy is higher on many agendas, but it is not getting into the CASs of key countries. Operations have improved and a lot has been done on partnerships, including strengthened cooperation with FAO and IFAD. The Vision to Action identified the sector's declining number of staff and certain staff skills, but the number of people in the sector has stabilized, its capacity in agriculture has been strengthened, and it is moving in the right direction in sectoral policy. However, capacity in forestry, rural finance, macro-sectoral economics and many other areas is eroding and Bank-wide needs should be kept in mind when filling scarce positions.

On knowledge management, he said thematic teams are active but all need to think of knowledge as a Bank resource and husband it carefully to ensure that it remains the Bank's comparative advantage. He called attention to the ongoing reviews of rural finance and the Bank's involvement in forest policy.

Future challenges that McCalla identified include remaining vigilant to keep policies from regaining an anti-rural bias. He said biotechnology and biosafety present new challenges and noted that the Bank has a biotechnology task force. Efforts to build capacity for developing countries to participate in upcoming WTO negotiations are also important as many client countries will be participating for the first time. More attention should be given to the role of the rural development anchor staff and the long-term role of the thematic teams. Two additional issues are understanding how to develop the necessary institutions to build the private sector and considering whether to approach natural resource management specifically or as it interfaces with agricultural and rural issues. He encouraged participants to continue making efforts not to distinguish between the field and headquarters staff, said he would take these issues up with the Rural Sector Board and noted that the Board's 2001 agenda calls for a revision of the sectoral strategy. Participants thanked the Rural Week organizers and expressed gratitude for the opportunity to network and exchange experiences. McCalla thanked Rural Week participants and organizers for making the event a success.

THINGS TO LOOK FOR

SUSTAINABLE FISHERIES – OPTIONS FOR THE FUTURE:

This conference, organized by the Marine Stewardship Council, will take place from 19 - 20 April 1999 in New York. For information, contact: Brendan May, External Affairs Director, Marine Stewardship Council; Tel: +44-171-350-4000; Fax: +44-171-350-1231; E-mail: Secretariat@msc.org; Internet: <http://www.msc.org>.

SEVENTH SESSION OF THE COMMISSION ON SUSTAINABLE DEVELOPMENT: CSD-7 will meet from 19 - 30 April 1999 in New York to address sustainable consumption and production patterns, oceans and seas, SIDS and sustainable tourism. For information, contact: Andrey Vasilyev, Division for Sustainable Development; Tel: +1-212-963-5949; Fax: +1-212-963-4260; E-mail: vasilyev@un.org; Internet: <http://www.un.org/esa/sustdev/>. For major group information, contact Zehra Aydin-Sidos, Division for Sustainable Development; Tel: +1-212-963-8811; Fax: +1-212-963-1267; E-mail: aydin@un.org.

THIRD SESSION OF THE INTERGOVERNMENTAL FORUM ON FORESTS: IFF-3 will meet in Geneva from 3 - 14 May 1999. For more information, contact: the IFF Secretariat, Two UN Plaza, 12th Floor, New York, NY 10017, USA; Tel: +1-212-963-6208; Fax: +1-212-963-3463; E-mail: hurtubia@un.org; Internet: <http://www.un.org/esa/sustdev/iff.htm>.

WORLD SUMMIT FOR SOCIAL DEVELOPMENT AND FURTHER INITIATIVES: WSSD+5 is scheduled to convene in New York from 17 - 28 May 1999 as a preparatory meeting. For more information, contact: N. Goran, United Nations, New York, NY 10017, USA; Fax: +1-212-963-3062; E-mail: ngoran@un.org; Internet: <http://www.un.org/esa/socdev>.

CONSULTATIVE GROUP ON INTERNATIONAL AGRICULTURAL RESEARCH MID-TERM MEETING: This CGIAR mid-term meeting will convene in Beijing, China on 24 May 1999. For more information contact: Shirley Geer, CGIAR, Washington, DC, USA; Tel: +1-202-473-8930; E-mail: Sgeer@worldbank.org; Internet: <http://www.cgiar.org>.

AFRICA WATER RESOURCES POLICY CONFERENCE: This conference, sponsored by the World Bank, will be held in Nairobi, Kenya from 24 - 27 May 1999. For more information contact: Francois-Marie Patorni; World Bank, Washington, DC, USA; Tel: +1-202-473-6265; E-mail: fmpatorni@worldbank.org; Internet: <http://www.worldbank.org>.

CBD SUBSIDIARY BODY ON SCIENTIFIC, TECHNICAL AND TECHNOLOGICAL ADVICE AND INTERSESSIONAL: SBSTTA-4 will meet from 21 - 25 June 1999 in Montreal. Agenda items include dryland ecosystems, invasive species and sustainable use. The intersessional will meet from 28 - 30 June 1999 in Montreal to review the operations of the Convention. For more information, contact: the CBD Secretariat, World Trade Center, 393 St. Jacques St., Suite 300, Montreal, Quebec, H2Y 1N9, Canada; Tel: +1-514-288-2220; Fax: +1-514-288-6588; E-mail: chm@biodiv.org; Internet: <http://www.biodiv.org>.

INTERNATIONAL EXPERTS' MEETING ON LOW FOREST COVER COUNTRIES: An Open-ended International Experts' Meeting on "Special Needs and Requirements of Developing Countries with Low Forest Cover and Unique Types of Forests" is tentatively scheduled for August 1999 in Tehran, Iran. For more information, contact: Mohsen Esper, Permanent Mission of the Islamic Republic of Iran to the UN, 622 Third Avenue, 34th Floor, New York, NY 10017 USA; Tel: +1-212-687-2020; Fax: +1-212-867-7086; E-mail: mesperi@un.int; or Shamse-din Shariat Nejad, Head of Iranian High Council on Forests, Ministry of Jihad Sazandegi (Rural Development), Tehran, Iran; Tel: +98-21-244-6505/244-6537; Fax: +98-21-244-6551; E-mail: Desert@Mavara.com.

SECOND INTERGOVERNMENTAL MEETING OF EXPERTS ON THE EL NIÑO PHENOMENON: This meeting will take place in Lima, Peru, in September 1999. For more information, contact: Dr. Rudolf Slooff, OCHA/IDNDR Secretariat; Tel: +41-22-798-6894; E-mail: info@dha.unicc.org; Internet: http://www.reliefweb.int/ocha_ol/onlinehp.html.

DESERTIFICATION AND THE EL NIÑO PHENOMENON: This meeting will convene in La Serena, Chile, from 12-15 October 1999. For information, contact: Dr. Rudolf Slooff, OCHA/IDNDR Secretariat; Tel: +41-22-798-6894; E-mail: info@dha.unicc.org; Internet: http://www.reliefweb.int/ocha_ol/onlinehp.html.