A Future Product of The Bank in Agriculture

A Proposed New Unit of Account

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PREFACE

The Author has been preparing a briefing note that focuses on trade-offs between of environment and economic development.

Introduction

- Innovative ways for Bank lending operations have been proposed. Responding to this new challenge will require focusing on at least three areas: investments, policy and sustainability.

- With regard to investments, new schemes are expected to be more comprehensive, but across sectors or other boundaries, and cover areas and activities that are (or will become) critical constraints to development. In this case, our attention is directed especially to constraints to agricultural development.
- With regard to policy, new approaches have to consider the policy environment as one of its key elements. Investment strategies in an inadequate policy environment are not sustainable and are bound to fail.
- With regard to sustainability, new approaches will necessarily focus not only on institutions and their absorptive capacity, but also on the long-term viability of the natural resource base.

- Economic efficiency, equity and financial resource mobilization are major components of this new product. In agriculture, this is translated first, into an expansion and better use of existing natural resources such as soil and tater. Second, on equity grounds, a major focus should be on low income or poverty groups, most of which are living in marginal lands or over-exploited watersheds. Third, resource mobilization considerations will need to go beyond project beneficiaries (i.e. the farmer) since the benefits (and costs) are shared by other groups in the economy.

- The new product of the Bank, particularly as it relates to policy changes, has new boundaries that will go beyond the boundaries of traditional projects.

- Policy boundaries are, by definition country boundaries and, therefore, these are identical to the physical boundaries of the natural resources at the disposal of a given country. Exceptions to this approach are, for example, international river basins and fisheries, which would require international coordination for effective management.
- Policy boundaries often do not necessarily coincide with project boundaries. Thus, effective policy changes, for example, with regard to- the use of soil and water, necessitate new approaches. Inconsistency in policy changes with regard to the recognition of these boundaries will severely limit the ability of countries to make best use of their available and scarce natural resources.
- Land use management will be affected by changes in such macro economic policy as price support in a selective group of crops, water charges in irrigation, water tariffs for drinking water supply, and the like.

- Available resources, particularly renewable resources in agriculture, are used by many sectors. Water, for example, is used for irrigation, drinking water, hydro power, riverine transport, recreation, fisheries, etc. In many cases these resources are used by more than one country.

- A narrow project orientation as it has been applied in the past tends to fragment public and private sector interventions.
- Traditional approaches to investment and policies tend to result in sub-optimal allocation and use and, in some instances, create

serious distortions somewhere else in the system. For example, policies which encourage the use of water for irrigation at low cost (e.g. where water charges are set at a very low level) will encourage the system to “overuse” water in agriculture at the expense of other sectors in the economy. Equity implications may be a major issue in this area.

- Another example is taxation policies that encourage the conversion of prime agricultural land into urban related activities, resulting in the displacement of highly productive farming systems out of production.

- Efficiency in resource use, therefore, requires us to focus on “conjunctive use” of resources. This is particularly true in water (including both water quantity and quality). One example of this problem is surface and ground water irrigation. River water use will affect the quantity and quality of underground water aquifers. Salinity, water logging, and salt water intrusion are examples of the types of negative effects (some of which are irreversible) of fragmentation of projects and policies.

- Since natural resources characteristically transcend individual farmers’ boundaries and political boundaries, external effects-due to this interdependence in use--often occur. These external effects are mostly negative. Thus:

- Erosion in the upper portion of a watershed encouraged, for example, by an agricultural development project, will have serious detrimental effects down stream (e.g., sedimentation).
- Interdependence can only be managed by distinguishing the “source” and “incidence” of exploitation and use. For example, in improving pasture lands, agricultural projects may encourage the use of fertilizers. At the

source, farmer incomes are expected to increase due to the rise in the productivity of land (e.g. better livestock development)i But due to leaching and other factors, fertilizers can cause major adverse effects in water resources that are used for drinking purposes.

- Effective policies, on efficiency and equity grounds (e.g. should the farmer pay for the negative effects of his fertilizer on the water resource, or should the urban consumer of water pay for the cost of water treatment), call for the use of a framework that considers the interdependencies in natural resource use.

A Change in the Unit of Account (see Figure 1)

- All of the above suggest a change in the unit of account for investments, policy formulation, appraisal and implementation.

- The new unit of account should be the Total Catchment Area (TCA). As regards investments, one should look into projects dealing with food production, forestry, hydroelectric power, riverine transport, water supply, irrigation, etc.
- As regards policies, pricing land and water will need to be assessed, as these policies affect not only agricultural productivity, but the productivity of all the economic activities located in the catchment.

- Changes in the unit of account will also avoid intersectoral misallocation of resources. It is particularly important to note that the boundary issue referred to earlier is solved by this new unit of account.

- Some definitions are necessary here. A catchment is an area of land which drains to a given lower level. Within very large geographical areas, a “large catchment” may have several smaller or sub-catchments. Catchments are dynamic living areas that have within them forests, crops, grasslands, wildlife, cities, farms, forests, rivers, etc. All of these activities are ecologically and economically interdependent.

- The TCA concept recognizes those interdependencies explained earlier.

The New Lending Approach

- The new lending approach will involve planning and implementation across sectors, and policy formulation which is consistent with pre-established objectives for all these sectors depending upon the proper management of the catchment.

- As regards investments t4thin projects, this new approach will include components that cut across sectors. Farmers could well get involved in the protection of marginal lands, soil conservation, livestock development and grass protection, forestry, efficient later use and management, adequate use of chemicals (e.g., fertilizers and pesticides), and all of the many traditional production components.
- In addition, these projects will need to include adequate design of roads, railways, power lines, recreation, control of industrial water pollution, riverbank protection, flood control, water supply, etc.

- There are major differences between this approach and the agriculture and rural development approach (ARDA) of the past, although, in the large majority of cases, these may be formulated in a very complementary fashion. Some of the differences are:

- The ARDA uses the farm as its main unit of account.
- The ARDA is fragmented with regard to natural resources boundaries and, thus, may not adequately address ecological sustainability.
- The ARDA has focused mostly on what goes on the land rather than on the land itself.
- The ARDA does not focus on external effects and interdependencies.

- The ARDA is often implemented using an organizational arrangement that focuses on specific political boundaries.
- The ARDA focuses on multiactivity schemes rather than on use consideration.
- The ARDA is policy constrained unless replication on a country-wide basis takes place.

-The main area where these two approaches have to be complementary in nature is related to implementation of the agricultural components of these programs.

- To avoid fragmented interventions and the types of problems often faced by agriculture and rural development projects, new institutions and organizational arrangements are required.

- This may require the Bank to encourage the formation of River Basin Development Authorities (RBDA), empowered not only to plan and implement development programs but to handle the financial aspects of these programs.

- The RBDAs will provide the basic milieu for the policy dialogue. As such, each of the affected subsectors will be represented, including not only agriculture but also public utilities and public sectors service in general.

- The RBDAs will be organized as autonomous agencies and will be operated on a financially sustained basis.

Financing, Disbursement and Cost Recovery

- Large-scale financing is expected to be required since these arrangements would constitute major investments, policy and sector programs. Once a master development program is developed (which could amount to several billions of dollars), the Bank will finance different and consecutive time slices. Within any given time slice, specific financial schemes will be developed to maximize external financing and co-financing efforts. Thus, while part of the agricultural component of such a program may end up being financed by, lets say, IFAD (due to its poverty orientation), the public utility component may be co-financed by private international Banks, and the policy content by the Bank or any other agency (e.g. World Food Programme).

- Major disbursement would take place due to the magnitude of this type of operation and due to economies of size (or, “due to the appeal of administrative efficiency”). This will simplify disbursement and bidding procedures, which is now fragmented in area projects and agencies. For example, many activities in the program will need the same type of earth-moving equipment. Instead of the agricultural component, road improvement, public utility component acting independently, the RBDA would act for all. (This approach could also have advantages due to the increase in efficiency during the implementation phase.) The formation of a “Disbursement Unit” within the RBDAs, assisted by the Bank, may result in a highly efficient disbursement schemes. Several other potentially beneficial effects could result.

- Cost recovery policies could be more comprehensive and more effective. First, the pricing scheme built in the cost recovery policy would be consistently applied across similar schemes (e.g. irrigation) and across sectors. Second, the cross subsidization sometimes required due to equity considerations could be applied since there will be more sectors and beneficiaries involved. Third, the needed fiscal reforms will be easier to implement. Fourth, cost recovery schemes within the framework of this new unit of account will help to avoid distortions in relative prices, which have often occurred when a project-based policy has been formulated. Finally, cost recovery, pricing, and incentive mechanisms could be set up to internalize external effects across groups of activities and beneficiaries, by recognizing who causes the negative effects in the system and who is affected (The Upper Magdalena Watershed Development Project is a good example).

Major Advantages of this Approach

- Besides the above mentioned merits of this new lending approach, the following potential advantages should be noted:

- It is environmentally sound.
- It will avoid fragmentation in public and private sector intervention.
- It will enhance the accomplishment of national development objectives.
- It is a better framework for policy foundation and for enacting adequate legislation.
- It will provide a rational framework for establishing standards (e.g., water quality).

Implications for the Bank

- Besides speeding up the process of implementation of the new “product” of the Bank, increasing the rate at which the Bank can transfer funds to developing countries, and accelerating development across sectors in an acceptable fashion, this proposal carries several implications for the ways in which the regions and the OPS are organized.

- The implications outlined below assume that only “marginal” changes are possible in the short-term. Of course, if major organizational changes are possible in the short-term, the implications presented here are not necessarily relevant.

- (a) Country Programs Departments. The changes that are taking place (e.g. creation of the SCPO positions), will clearly be a move in the right direction. To a large extent, this new unit of account will be instrumental as an approach to country management. This is particularly the case in countries where the national economy is dominated by the agricultural sector. Critical points at winch program and policy planning should take place are:

- Director’s Office
- Chief Economist
- SCPO

- (b) Project Departments. The most important change will be in the

area of sector work and project identification. The new unit of account should provide the framework for the necessary selection criteria in project, program and sector loans, and for sector work. Intersectoral coordination will materialize at the earlier stages of the project cycle. Critical points at ,which program and policy planning should take place are:

- Director’s Office
- Senior Economist
- Division Chief

(c) OPS Departments. OPS will play a critical role in the implementation of this approach, since it is in a unique position to (i) deal with both the macro and micro-economic aspects of the advocated strategy and (ii) improve intersectoral coordination (e.g. agriculture, public utilities, transport, urban).

Implications for Client Countries

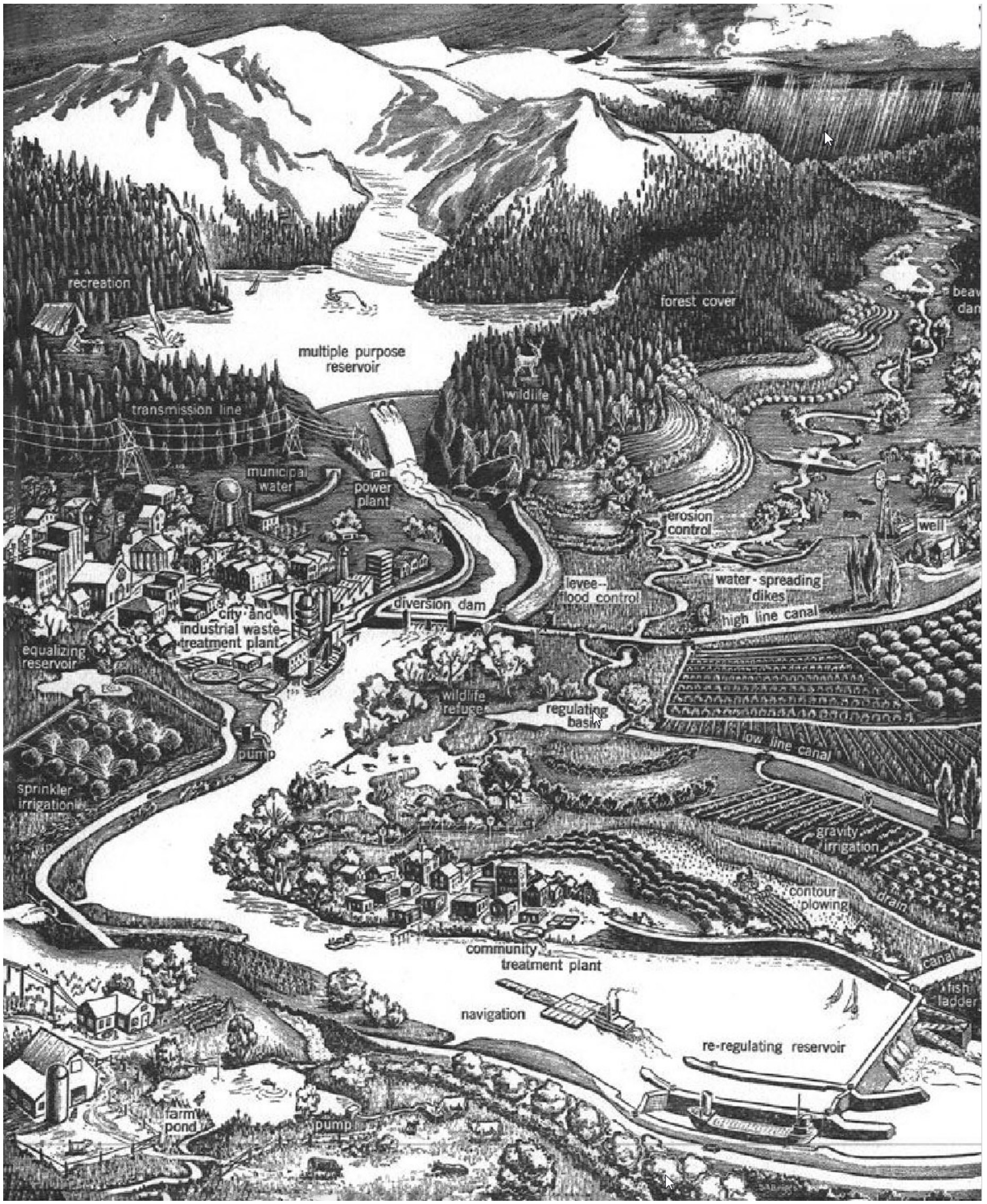
- The approach and the institutional reforms proposed do not suggest to go much beyond what is required now to implement the new products of the Bank (e.g., sector, policy and SAL loans).

- The proposed approach of the new unit of account has been followed (probably out of necessity) in many types of projects (e.g., multi-purpose water projects, energy projects). Whenever more than one sector competes for the same natural resources, formulation, evaluation and negotiations transcend the individual components and the corresponding government agencies. This assessment also applies with regard to policy changes.
- The advocated institutional reforms, including the formation of RBDAS, will not come as a surprise to several developing countries. These are developing countries that have created development authorities. A recent one is the Narmada Planning Authority (NPA), in India. NPA has been empowered not only to be a catalyst but to carry out the planning, design and implementation of the Narmada River Basin project. This Authority has been capable of establishing the mechanisms necessary to govern this project in several states in India.

-The approach and institutional reforms suggested in this brief have been adopted by many developed countries. Experience from these countries should be of tremendous value in proceeding with this strategy.

- The United States offers a good example. The Mississippi and the Tennessee Valley Development Authorities are two cases in point.
- Experiences in Canada and several European countries could also be seriously considered.

Figure 1



Physiographic provinces found in a large river basin

(From A Water Policy for the American People - Report for The President's Water Resources Policy Commission, 1950)

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