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**Gender critique of research proposal  
submitted to IDRC for funding:**

***Improving crop-livestock productivity through efficient  
nutrient management in mixed farming systems of semi-  
arid West Africa***

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**General Assessment of Proposal from a Gender Perspective**

The goal of the research proposed under "*Improving crop-livestock productivity through efficient nutrient management in mixed farming systems of semi-arid west Africa*" is to contribute to poverty alleviation and improvement of food security in semi-arid West Africa (SAWA) through increased agricultural production. As its overall objective, the proposed research intends to increase the productivity of crop-livestock farming systems through better nutrient management. The following critique assesses the overall research proposal in terms of gender concerns.

Overall, while the proposal mentions gender analysis under Specific Objective 1 and gender as the last factor of success, it lacks an explicit consideration of gender concerns

as an underlying key to research design, on-farm experimentation, and technology development on the whole. For the sake of this review, "gender" is a social, not a biological construct and refers to the attitudes, characteristics, roles, values, and relationships that are determined, shaped and perpetuated by society -- that society considers appropriate for men and for women. Gender relations, roles, and issues often differ from one cultural group to another and/or one agro-ecosystem to another.

While the proposal states that research is to be conducted on-station and on-farm, it is not clear where or with whom specific objectives and activities will be carried out. Nor is it clear whether farmers -- both women and men -- will be engaged actively through all phases of the research. This is critical to the development of a realistic workplan, farmer participation in the research, and the sustainability of outputs and uptake of technology. To consider gender issues is to consider, from the start, issues of differential access, labour, needs and priorities, the latter of which is noted in the proposal.

In looking at a "crop/livestock" system, key fundamental "gender" questions must be asked such as "What crops/animals?", "Whose crops/animals?", "Whose labour?" For example, it is typically Bambara women who process and market the fruits of the "shea nut" and "nere" trees. During the fallow cycle, the social scope of usufruct of these trees broadens, often to the entire community. However, during cultivation, use narrows to the lineage, household or individual women. This example points to the need to identify the fundamental questions as stated above. It also indicates the sometimes murky delineations of labour and access depending on seasons, kinship, and customary or legal tenure, etc.

The proposal indicates that farming systems in SAWA are evolving towards more integrated forms of crop and livestock production due to increasing demographic pressures. While this is undoubtedly the key factor, there are potentially other socio-economic or political factors contributing to these evolving systems. It would seem that over time, changing land tenure systems have also had an impact. For example, in Mali, competing land use has made an impact on the Bambara's bush fallow complex; permanent cash cropping for foreign exchange has been promoted by the state and parastatals and has targeted individual male farmers with packages of inputs available on credit, often to the detriment of female partners. This indicates how government policy can also impact farming systems and land use.

In the background section, the proposal notes that the interactions between livestock and crop production and their implications for the management of nutrients are neither limited to the field nor to the farm, but take place in the broader spatial level of the village territory and therefore within a complex socio-economic environment. With this acknowledgment and understanding, the research must endeavour to address more fully the socio-economic *and* gender considerations inherent in the livestock/crop production systems.

Above all, the following gender issues must be addressed throughout the lifespan of the research -- from research design to testing to implementation -- in order to ensure unbiased results and long-term sustainability: i) gendered division of labour (dol); ii) gendered access to and control over resources; and, iii) the needs and priorities, knowledge and recommendations of different user groups in technology development and adoption. Furthermore, assumptions and hypotheses must be revisited in light of gender concerns.

### **Practical Needs and Strategic Interests in Research Proposal**

*Practical gender needs*, those identified by women and men which arise out of the

customary gender division of labour and which generally are a response to immediate perceived necessity, are often concerned with inadequacies in living conditions such as lack of fuelwood or water or employment. *Strategic gender interests* on the other hand refer to challenges in customary gender relations and therefore changes in relationships of power and control of men and women. These include participation in decision-making processes, legal rights (e.g. customary vs. legal land tenure laws), etc. As noted above, three key issues under these needs and interests have been identified as particularly relevant to the research proposal and which require more attention throughout the three-year research period.

***Division of Labour and Gendered Roles:***

*Gender Issue: Gender allocates to men and women different, but often complementary, overlapping roles, responsibilities and activities. Through those roles, gender gives men and women different life experiences, knowledge, skills, needs and priorities.*

*Proposal:* Among other key factors, the proposal recognises the need to determine the way in which management methods influence household decisions on use of nutrients. This is a critical area to address in terms of gender concerns. To ensure that i) the necessary actors are included in each phase and sector of research (e.g. fattening, soil improvement, watering, etc.); and ii) realistic research outputs, it is essential that the research teams work with women and men farmers to first identify respective daily and seasonal schedules and gender-related production roles in terms of crops and livestock (including homegardens or women's plots), and to develop an understanding for the labour systems in general. Clearly, it is important to understand the existing gender roles and identify potential changes and implications therein.

The proposal rightfully points out that it is necessary to develop or adapt models at the household and or village territory to assess the potential impact of new technologies, in this case nutrient management strategies (NMS) on soil fertility, crop and livestock production and household income. However, it does not mention the need to address the impact of NMS on "labour". Who will undertake the new management strategies? Who will be involved in the development of research? What are the existing roles already?

*Example:* In the village of Bam, on the fringe of the Great Mossi Plateau, the Mossi and the Fulbe coexist. At any one time, about thirty percent of mostly males from each group migrate away to work elsewhere -- the Mossi to wage labour in Cote d'Ivoire and the Fulbe to tend animals elsewhere in the country. In terms of very *general* gender divisions of labour across different ethnic groups in the village, it is Mossi men who are often involved in petty commodity production. Fulbe men on the other hand often tend Mossi cattle. Mossi women often prepare various foodstuffs for village or local markets, including fruits and vegetables from their own plots; Fulbe women, on the other hand are involved in the selling of surplus of milk throughout the year.

***Access to, Control over Resources, Services, and Decision-making:***

*Gender Issue: The increasing concentration of poverty among rural women is attributed to their limited access to, and control over productive resources (land, water, labour, inputs and technology), services (extension, training and credit), and markets, and to their limited participation in decision-making processes towards enhancing agricultural productivity. When households must generate additional earnings or confront a decrease in access to services due to economic crisis, policy, or loss of resources, it is generally women who must mobilize their energies to compensate.*

*Proposal:* The proposal acknowledges that SAWA faces not only production limitations, but also that low rural incomes, inappropriate public policies and infrastructural constraints have prevented the widespread use of purchased inputs such as inorganic

fertilizers and feed supplements. It notes that previous research has shown that external sources of nutrients are needed to sustain the farming systems and the profitability therein. However, it does not make note of the fact that research and development efforts have shown that poor rural farmers -- particularly female poor rural farmers -- suffer differential impact from such policies and infrastructural constraints.

*Example:* It has been noted that Bambara women use the fruits of the shea nut tree. The Government of Mali claims "de jure" ownership of all land. However, customary tenure is recognised in most rural areas. In some areas, incentives to keep valuable tree species in the field is lessened because restrictions (Forestry Service fines) have made the risks of exploitation more costly than potential benefits. A male farmer clearing fallow may decide *not* to protect shea seedlings fearing he may later lose control over his land use options. However, women, without decision-making power in this case, face the loss of potential income generated from the processing and marketing of the shea nut fruits.

### **Technology Development and Adaptation:**

*Gender Issue:* Most science and technology programmes addressing needs in rural areas of developing countries have failed to recognize the gendered nature of development. Rather, they have tended to respond to the tasks that men perform and to men's interests and needs in the development process. It is essential to involve end users, men and women equally, in determining research priorities and in designing and implementing technology and development programmes.

*Proposal:* Much of the research proposal is focused on supplements, grazing, watering and corralling schedules, intensive fattening and dairy systems, capture of manure, and policy options and economic incentives for technology adoption. However, while there is noted concern over the need to look at demand and supply patterns, processing facilities, credit, extension services, etc. there is no explicit mention of the need to undertake technology identification, testing and development needs with the specific actors responsible for specific production activities. Perhaps women are responsible for the feeding of animals, and children for the watering. Perhaps men are responsible for commercial dairy enterprises. What sort of gendered impact on the control over livestock will an intensive fattening/dairy system have? Whose schedule will be disturbed, changed, added to, in feeding supplements, obtaining supplements, maintaining corrals, collecting manure, etc.? Whose needs will be met by the new technology/ies?

*Example:* In Diourbel Senegal, "soil-fertility-maintaining techniques" tend to involve "male" tasks and inputs which are difficult for women to control themselves for various reasons. For example, for the application of manure, transportation using donkey, horse, or cart is often necessary. When men are absent (such as when they migrate), women are thus dependent on the labour of male children, neighbours or hired hands to undertake the task. It is suggested that because fertilizer purchase is considered a "male activity", the presence of men in Diourbel is likely to increase the use of fertilizer *where* households can afford this input.

### **Areas requiring further attention in research methodology and objectives**

Of particular concern, it is noted that the proposal claims that the research will be multidisciplinary. Yet in terms of *socio-economic* and gender concerns, it appears there is only one sociologist (in one country) on the team. It is therefore essential that the other team members in each country have experience with *gender-responsive* participatory research methods and a good understanding of the necessity to consider gender in all areas of the research. Further, workplans and terms of reference should be written or

revised to ensure that such considerations are addressed from day one. Otherwise, it is quite likely that results will be skewed or possibly incorrect and the wrong actors potentially targeted for the wrong activities.

Appropriately, the research is proposed in benchmark sites -- differing agro-ecological systems-- in each of the four countries. This is important to note, in addition to other factors such as ethnicity when considering gender concerns throughout the project. Gender issues may differ quite drastically from area to area depending on the division of labour, the access (both customary and legal) to productive resources and land, and technologies in place already.

It is suggested that the methodology include the use of more gender-responsive PRA tools, and focus groups of women and men farmers (in addition, or complementary to household surveys). Further, in light of the need to consider "labour", it is essential to identify the different roles and responsibilities of women and men. Any household survey should be pre-tested to ensure that questions highlight both men's and women's experiences. While men (and often even women) may not consider women as "farmers", they *are* in their own right.

On a more general note, but with potential implications for the question of gender, the proposal should be thoroughly reviewed in terms of organisation of objectives and activities, particularly as they relate to Tables 2 and 6 (allocation of research per site and budget). Presently, the proposal reads as though Objective 1 had not been budgeted for or allocated to a site. Finally, while the proposal poses some very interesting and indeed crucial questions on the matter of food security in SAWA, gender concerns will need to be identified and addressed more thoroughly in the upcoming workplan and further activities to ensure a strong and successful project that benefits both men and women farmers.

### **Suggested key references**

- Grigsby, William J. "Women, Descent, and Tenure Succession among the Bambara of West Africa: A Changing Landscape." Human Organization, V. 55, No. 1, 1996, 93-98.
- Rothven, O and R. David. "Benefits and Burdens: Researching the consequences of migration in the Sahel." IDS Bulletin, V. 26, No. 1, January 1995, 47-53.
- Toulmin, Camilla. Cattle, women and wells: managing household survival in the Sahel. Oxford: Oxford University Press, 1992.
- Wijethilake, S. Discovering Technologists: Women's and men's work at village level. Colombo: Intermediate Technology Publications, 1997.