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INSTITUTIONS FOR A SUSTAINABLE AND EQUITABLE IMPROVEMENT OF WATER PRODUCTIVITY OF CROP-LIVESTOCK SYSTEMS IN ETAWAH DISTRICT

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PROBLEM

Farmers in Etawah District and in other parts of the Ganga Basin have developed farming systems integrating both crop cultivation and livestock activities. Access and control over water supply is critical not only for crop cultivation and food security but also for the production of sufficient and high quality feed for animals.

Increased climatic variability, linked with groundwater problems such as water table depletion, urge researchers and policy-makers to adopt **an integrated approach for water, crop and livestock management**. Despite the recognition of the need for a coordinated and collaborative approach between line Departments at multiple administrative levels, the integration of initiatives directed to agriculture, animal husbandry and water management among government organisations remains limited.

RESEARCH RESULTS

- There are efforts for enhancing the interaction between line Departments at the district level, e.g. with the programme ATMA or through the organisation of monthly meetings for scheme monitoring. However these initiatives remain largely punctual and reactive. As a result, there is **limited dialogue** for identifying the **optimized combination of crop and feed production under water resource constraints at the district level**.
- Livestock water productivity estimations show a high variation between farming systems (e.g. wheat-cotton, wheat-millet) and between households of a similar system (Hailelassie et al., 2010, to be submitted to scientific review). It implies that **interventions would have more impact if targeted to specific groups of farmers** with distinct livelihood strategies and access to different forms of capital (e.g. physical in the form of land or space for animal shed, financial, etc).
- Most government interventions for rural development follow a top-down process with district, block and gram panchayat (GP) officers implementing schemes according to **funds and procedures decided by the state and central government**. It sometimes results in a **mismatch between local realities and state/central requirements** – e.g. crop productivity targets are fixed by the State with limited consideration of local weather conditions. Local variations in feed availability might not be adequately acknowledged and addressed by the state government. Lastly, such top-down processes **rarely provide sufficient flexibility** to adapt agricultural interventions to groups of farmers with different strategies and capabilities.
- According to interviewed farmers, the role of the GP is limited to road construction, street cleanliness and hand pumps installation. **GPs largely lack of decisional power and financial autonomy to respond to local needs**. The exclusive reliance on central and state funds and their allocation on a programmatic basis do not support optimal fund spending. For instance, under the current system, GPs have incentives to spend the funds quickly to achieve the objectives of a scheme, which might hinder the optimization of fund expenditures.

DEVELOPMENTAL IMPLICATIONS

- Improved integration of animal husbandry, crop cultivation and water management in government schemes
- Increased control of farmers over the inputs for their farming system
- Enhanced responsiveness of local elected and non-elected government bodies
- Improvement of the livelihoods of farmers through a better consideration of local needs;

PROPOSED POLICY ACTIONS

- Encourage a pro-active and strategic dialogue between the Animal Husbandry, Agriculture, Horticulture and Irrigation Departments on the interaction between crop cultivation, feed and water requirements at the district level. This requires creating sufficient incentives for a coordinated action.
- Evaluate the adequacy between crop/fodder cultivation, feed requirement and related water needs at the block level and adapt the promotion of specific crops to the local context.
- Increase the financial autonomy of Panchayat Samitis and GPs with adequate financial audits. For instance, panchayati raj institutions at block and village level could be involved in the provision of services such as seed banks, milk cooperatives, which return could be invested for local development.
- The performance of scheme implementation could be enhanced by increasing access to information on legal rights and procedures (e.g. on the Rights to Information Act) through the creation of village information/internet centres, either through GPs or private farmers. Such initiatives should be coupled with an assessment of the equitable access of all farmers to these facilities.

REFERENCES

Haileslassie, A., Blümmel, M., Clement, F., Samad, M., Acharya, S., A. Venkata, R., Ishaq, S., 2009. Micro scale livestock water productivity: assessing option for improvement and its impacts on environmental sustainability (to be submitted in 2010 for journal publication).

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<http://sawal.iwmi.org>

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