Cross-country analysis of human and institutional capacity development challenges in livestock systems research: Problematizing training as a research capacity development solution

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**ORGANIZATIONAL & INSTITUTIONAL CAPACITY**

The internal structures, policies, and procedures that determine an organization’s effectiveness. This includes support systems (fiscal, human resources, technical), incentive systems, and organizational goals and plans.

**HUMAN CAPACITY**

The skills, experiences, knowledge, behaviors and/or attitudes that allow individuals to perform.

**ENABLING ENVIRONMENT**

The broad social system within which individuals and organizations function, including the rules, laws, policies, power relations, and social norms that govern civic engagement.

**WHAT IS CAPACITY DEVELOPMENT?**

- What is the level of performance?
- What are the performers?

**APPROACH**

- Can be ad hoc
- Results-oriented at participant level
- Training needs assessment
- Based on learner needs
- Evaluated by organizational level
- Continuous measurement
- Focus on systems approach to improve performance
- Performance assessment
- Results-oriented at organizational level
- Must be systematic

**CROSS COUNTRY ANALYSIS**

Purposive sample: Universities who are partnering with the Feed the Future Innovation Lab for Livestock Systems and/or who are the primary university responsible for agriculture and livestock training.

**NEPAL, RWANDA, ETHIOPIA**

**GAP ANALYSIS EXAMPLE: THE CASE OF NEPAL**

**TRAINING vs CAPACITY DEVELOPMENT**

**TRAINING ONLY APPROACH**

- An event
- Follow-up with individual performers
- Based on learner needs
- Evaluated by individual performance
- Focus on one or few individuals
- Training needs assessment
- Results-oriented at participant level
- Can be ad hoc

**HICD SYSTEMS APPROACH**

- A process
- Continuous measurement process
- Based on organization needs
- Evaluated by organizational performance
- Focus on systems approach to improve performance
- Performance assessment
- Results-oriented at organizational level
- Must be systematic

**METHODS**

- Key informant interviews
- Focus groups
- Participatory workshops
  - With university administration, senior faculty, junior faculty, female students, male students, local communities, and government agencies

**ANALYSIS**

A thematic analysis was used to identify major themes discussed by participants. Participatory workshops were used to prioritize themes. 26 themes were identified. 15 themes were shared across the three study countries.

**RESEARCH METHODS & STATISTICS**

Blockages at the lab relate to outdated research methods & lack of advanced statistical knowledge needed to interpret test results, create models, & advance to innovative & internationally competitive research platforms.

**COMMUNITY RELEVANT RESEARCH**

In all countries there is concern about "shelving" & "academic exercises" meaning repetition & lack of innovation. Research is not meeting the demands/needs of local stakeholders. This ties to lack of strategic planning in outreach & communication, lack of stakeholder engagement (from community to policy levels), & poor linkages between research, teaching, & extension.

**RESEARCH → TEACHING → EXTENSION LINKAGES**

In all countries RTE linkages are weak or nonexistent. Some countries have instituted a "land grant" model but without adequate institutions & funding mechanisms. Other countries have different ministries handling research, teaching, & extension. Lack of cross-institutional relationships, collaboration, planning, funding, & policies contribute to poor RTE linkages.

**ENABLING POLICIES**

National budget allocations for research are low (particularly for agriculture & livestock research). Education budgets lack funding for infrastructure & equipment for practical skills training. Extension/outreach budgets are minimal. Across RTE budgets for laboratories & farms are blockages.

**FUNDING**

At the institutional level policies & process including tenure & promotion, incentive systems, & time allocation (such as only time for teaching) are pervasive issues. At the governmental level national budget allocations, conflicting or competing missions of ministries, & political strife have reverberating effects through the system.

**LABORATORY SKILLS & MANAGEMENT**

The most commonly reported issue across all countries. Lab technicians lack equipment maintenance skills (how to maintain, calibrate, repair equipment). Researchers (fiscally, technically, students, etc.) lack skills on how to properly use equipment, which tests to run & why & how to interpret test results.

**SAMPLE OF COMMON THEMES**

- Policies & processes
- Incentives
- Effectiveness, efficiency, & usability
- Equipment, lab & computer
- Facilities
- Systems, & organizational goals and plans.

**Research skills**

- Teaching & extension. Lack of cross-institutional relationships, collaboration, & planning.
- Funding & laboratory. Lack of cross-scale relationships, collaboration, & planning.
- Other countries have different ministries handling research, teaching, & extension. Lack of cross-institutional relationships, collaboration, & planning.

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**Enabling environment**

- The broad social system within which individuals & organizations function, including the rules, laws, policies, power relations, & social norms that govern civic engagement.

**Human capacity**

- The skills, experiences, knowledge, behaviors &/or attitudes that allow individuals to perform.