

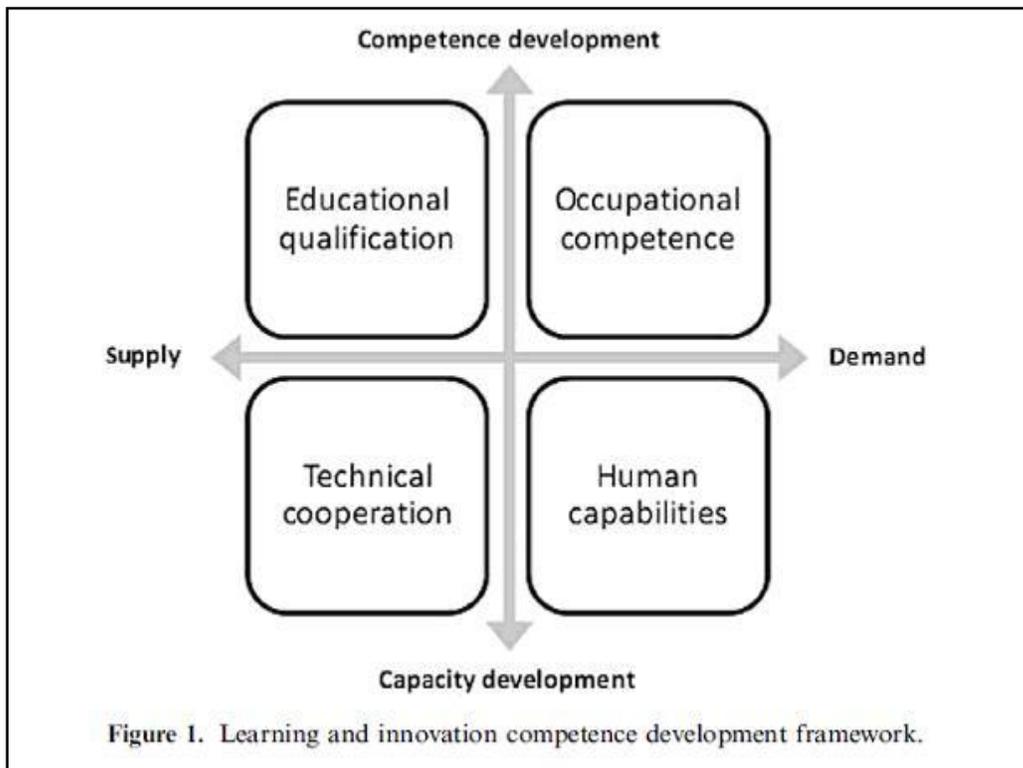
### Competence Development through Education and Capacity Development through Extension



*While the concept of capacity development is much discussed in extension literature, little attention is given to competence development, argues Dr Laxmi Prasad Pant. In a recent paper (see Pant, 2012), we argued that the fields of 'competence development' and 'capacity development' remain isolated in the scholarship of learning and innovation despite the contemporary focus on innovation systems thinking in agriculture and rural development.*

While the concept of capacity development through technical cooperation is much hyped in the international development literature, including agricultural extension, this body of literature fails to make a connection with the literature on competence development (e.g., Biemans et al., 2009; Mulder, 2001) (Figure 1). To address this gap, we argue for a need to differentiate technological competence from other types of competence, and suggest that while the focus on input and output indicators of innovation are relevant to assess technological innovation competence development, outcome indicators of innovation, such as measures of positive changes in habits and practices, would better serve the purpose of assessing and developing organizational and institutional learning and innovation competence.





**Source: Pant (2012)**

Our study was conducted in the Krishna district of Andhra Pradesh, India and in the Chitwan district of Nepal. Findings suggest that the task of competence development in food and agriculture involves degrees and diplomas from universities and vocational training institutes that engage students in various levels of theory-based, competence-based and experiential learning. For example, the Agriculture and Forestry University (AFU) of Nepal engages students in various experiential learning activities in addition to theory-based conventional lectures. However, one potential area for agricultural universities is to transform conventional instructional practices engaging current and future farmers in occupational competence development in addition to the ongoing efforts to train future agricultural scientists, extension workers and academics. For this to happen, we need to transform farming into a dignified occupation to attract educated youths in this profession that has serious implications to feed nine billion people by 2050.

In conclusion, crossing the conventional boundaries of competence development and capacity development serves as a way to renew the role of education within the innovation systems thinking. However, such an attempt to enhance human capabilities and functioning through education should focus on transformation at the systems level. Thus our research demonstrates the value of crossing the conventional boundaries of the two seemingly unrelated fields—competence development through education and capacity development through extension – to provide new directions to operationalise innovation systems thinking in agricultural education and extension.

## Reference

**Biemans, H., Wesselink, R., Gulikers, J., Schaafsma, S., Verstegen, J., & Mulder, M. (2009).** Towards competence-based VET: dealing with the pitfalls. *Journal of Vocational Education and Training*, 61(3), 267-286.

**Mulder, M. (2001).** Competence development - some background thoughts. *The Journal of Agricultural Education and Extension*, 7(4), 147-158.

**Pant, L. P. (2012).** Learning and Innovation Competence in Agricultural and Rural Development. *Journal of Agricultural Education and Extension* 18 (3), 205-230.

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