**History**

It is not known where or when the first extension activities took place. It is known, however, that Chinese officials were creating agricultural policies, documenting practical knowledge, and disseminating advice to farmers at least 2,000 years ago. For example, in approximately 800 BC, the minister responsible for agriculture under one of the Zhou dynasty emperors organized the teaching of crop rotation and drainage to farmers. The minister also leased equipment to farmers, built grain stores and supplied free food during times of famine.

The birth of the modern extension service has been attributed to events that took place in Ireland in the middle of the 19th century. Between 1845–51 the Irish potato crop was destroyed by fungal diseases and a severe famine occurred. The British Government arranged for "practical instructors" to travel to rural areas and teach small farmers how to cultivate alternative crops. This scheme attracted the attention of government officials in Germany, who organized their own system of traveling instructors. By the end of the 19th century, the idea had spread to Denmark, Netherlands, Italy, and France.

The term "university extension" was first used by the Universities of Cambridge and Oxford in 1867 to describe teaching activities that extended the work of the institution beyond the campus. Most of these early activities were not, however, related to agriculture. It was not until the beginning of the 20th century, when colleges in the United States started conducting demonstrations at agricultural shows and giving lectures to farmer’s clubs, that the term "extension service" was applied to the type of work that we now recognize by that name.

In the United States, the Hatch Act of 1887 established a system of agricultural experiment stations in conjunction with each state's land-grant university, and the Smith-Lever Act of 1914 created a system of cooperative extension to be operated by those universities in order to inform people about current developments in agriculture, home economics, and related subjects.

**Four generations of extension in Asia**

The development of extension services in modern Asia has differed from country to country. Despite the variations, it is possible to identify a general sequence of four periods or "generations"

**Colonial agriculture:** Experimental stations were established in many Asian countries by the colonial powers. The focus of attention was usually on export crops such as rubber, tea, cotton, and sugar. Technical advice was provided to plantation managers and large landowners. Assistance to small farmers who grew subsistence crops was rare, except in times of crisis.

**Diverse top-down extension:** After independence, commodity-based extension services emerged from the remnants of the colonial system, with production targets established as part of five-year development plans. In addition, various schemes were initiated to meet the needs of small farmers, with support from foreign donors.

**Unified top-down extension:** During the 1970s and 1980s, the Training and Visit system (T&V) was introduced by the World Bank. Existing organizations were merged into a single national service. Regular messages were delivered to groups of farmers, promoting the adoption of "Green Revolution" technologies.

**Diverse bottom-up extension:** When World Bank funding came to an end, the T&V system collapsed in many countries, leaving behind a patchwork of programs and projects funded from various other sources. The decline of central planning, combined with a growing concern for sustainability and equity, has resulted in participatory methods gradually replacing top-down approaches.

The fourth generation is well established in some countries, while it has only just begun in other places. While it seems likely that participatory approaches will continue to spread in the next few years, it is impossible to predict the long-term future of extension. Compared to 20 years ago agricultural extension now receives considerably less support from donor agencies. Among academics working in this field, some have recently argued that agricultural extension needs to be reinvented as a professional practice. Other authors have abandoned the idea of extension as a distinct concept and prefer to think in terms of "knowledge systems" in which farmers are seen as experts rather than adopters.

**Aspects of future extension education:**

Evolution of extension system and operation alisation of approaches

* Future extension education initiatives
* Collegiate participation of farmers
* Web enabled technology dissemination
* Developing cases as tools for technology dissemination
* Agriculture as a profitable venture
* Scaling up of group mobilization
* Micro-enterprises promotion

Several of the institutional innovations that have come up in response to the weaknesses in public research and extension system have given enough indications of the emergence of an agricultural innovation system in India. This has resulted in the blurring of the clearly demarcated institutional boundaries between research, extension, farmers, farmers' groups, NGOs and private enterprises. Extension should play the role of facilitating the access to and transfer of knowledge among the different entities involved in the innovation system and create competent institutional modes to improve the overall performance of the innovation system. Inability to play this important role would further marginalize extension efforts.