



## A Bird Eye View of Krishi Vigyan Kendra in India

### KEYWORDS

Shannon-Fano, Huffman coding, Lempel Ziv

### T. Thileepan

M.Sc (Ag), M.B.A., M.Phil. Assistant Professor,  
Dept. of Business Administration Annamalai University  
Annamalai Nagar – 608 002, Tamil Nadu.

### T. Jeeva

M.Sc., M.Phil., M.Ed., M.Phil, Senior Lecturer, DIET  
Oddenchatram, Dindigul (Dt)

**ABSTRACT** This paper describes the different types of compression techniques such as lossless and lossy data compression. This survey paper has been written with the help of different types of algorithm like run length, Huffman coding, Shannon-Fano, Lempel ziv, vector quantization etc. The reference of these algorithms has been taken from various books and research papers on Data compression. Today data compression is very useful in our life. The main purpose or aim of data compression is to compress any type of data that is transfer over the communication channel, because of the limited channel bandwidth and data storage capacity. The use of lossless and lossy techniques for data compression means that the numbers of bits are reduced in the original information. By the use of lossless data compression there is no loss in the original information but while using lossy data compression technique some numbers of bits are loss.

### Historical background of Krishi Vigyan Kendras

The Education Commission (1964-66) recommended that a vigorous effort be made to establish specialized institutions to provide vocational education in agriculture and allied fields at the pre and post matriculate levels to cater the training needs of a large number of boys and girls coming from rural areas. The Commission further suggested that such institutions be named as 'Agricultural Polytechnics'. The recommendation of the Commission was thoroughly discussed: during 1966-72 by the Ministry of Education, Ministry of Agriculture, Planning Commission, Indian Council of Agricultural Research (ICAR) and other allied institutions. Finally, the ICAR mooted the idea of establishing Krishi Vigyan Kendras (Agricultural Science Centres) as innovative institutions for imparting vocational training to the practicing farmers, school dropouts and field level extension functionaries.

The ICAR Standing Committee on Agricultural Education, in its meeting held in August, 1973, observed that since the establishment of Krishi Vigyan Kendras (KVKs) was of national importance which would help in accelerating the agricultural production as also in improving the socio-economic conditions of the farming community, the assistance of all related institutions should be taken in implementing this scheme. The ICAR, therefore, constituted a committee in 1973 headed by Dr. Mohan Singh Mehta of Seva Mandir, Udaipur (Rajasthan), for working out a detailed plan for implementing this scheme. The Committee submitted its report in 1974.

The first KVK, on a pilot basis, was established in 1974 at Puducherry (Pondicherry) under the administrative control of the Tamil Nadu Agricultural University, Coimbatore.

The Planning Commission approved the proposal of the ICAR to establish 18 KVKs during the Fifth Five Year Plan. With the growing demand for more such Kendras, the Governing Body (GB) of the Council approved 12 more KVKs in 1979 and they were established in the same year

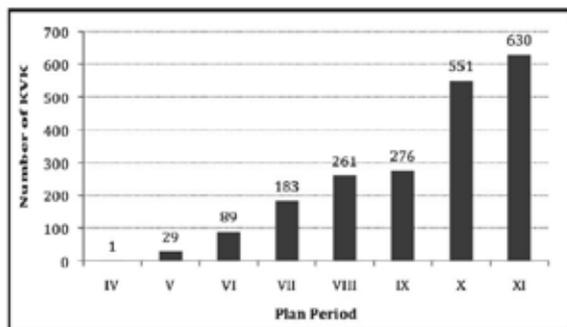
from Agricultural Produce Cess Fund (AP Cess Fund). Pending clearance of the Sixth Five -Year Plan scheme on KVK by the Planning Commission, the GB of the Council again approved 14 KVKs in 1981, which were established during 1982-- 83 from AP Cess Fund.

A High Level Evaluation Committee on KVK was constituted by the ICAR in 1984. After thorough review of the programme, strongly recommended for the establishment of more KVKs in the country. Keeping this in view the Planning Commission approved to establish 44 new KVKs during the Sixth Plan. Thus by the end of Sixth Plan, 89 KVKs had started functioning in the country.

During the Seventh Plan, 20 new KVKs were established. The success of KVKs at many locations created a great demand for establishment of more KVKs in the remaining districts of the country. Accordingly, the Planning Commission further approved 74 new KVKs to be established during the period 1992-93. Again in the Eighth Plan (1992-97), 78 new KVKs were approved and the same were established in the country, making total number of functional KVKs by the end of the Eighth Plan to 261. The number of KVKs increased to 290 during Ninth Plan with the establishment of 29 KVKs.

On the occasion of the Independence Day Speech on 15th August, 2005 the Hon'ble Prime Minister of India announced that by the end of 2007 there should be one KVK in each of the rural districts of the country. This has taken the total number of KVKs to 551 at the end of Tenth Plan.

At present there are 630 KVKs, which include 428 under State Agricultural Universities (SAU) and Central Agricultural University (CAU), 51 under ICAR Institutes, 99 under NGOs, 35 under State Governments, and the remaining 17 under other educational institutions. The growth in number of KVKs during various plan periods is given below



Krishi Vigyan Kendra, a plan scheme designed and nurtured by ICAR for the past four decades, will play a vital role as it has the following unique features:

- Creation of valuable resources in terms of technical manpower and assets
- Confirmation of technologies to suit local specificity
- Showcasing the frontier technologies
- Capacity building among stakeholders
- Front runner in technological application, information and inputs
- Participatory approaches in planning, implementing, executing and evaluation

All KVKs are working towards reducing the time lag between generation of technology at the research institution and its application to the location specific farmer fields for increasing production, productivity and net farm income on a sustained basis with the following mandate.

**Mandate**

Application of technology/products through assessment, refinement and demonstration for adoption. To achieve the mandate effectively, the following activities are envisaged for each KVK:

- On-farm testing to identify the location specificity of agricultural technologies under various farming systems.
- Frontline demonstrations to establish its production potentials on the farmers’ fields.
- Training of farmers and extension personnel to update their knowledge and skills in modern agricultural technologies.
- Work as resource and knowledge centre of agricultural technologies for supporting initiatives of public, private and voluntary sector for improving the agricultural economy of the district.
- Produce and make available technological products like seed, planting material, bio agents, young ones of livestock etc to the farmers
- Organize extension activities to create awareness about improved agricultural technologies to facilitate fast diffusion and adoption of technologies in agriculture and allied sectors.

**Krishi vigyan kendras**

| Zone I – 70 KVKs  | No.of KVKs |
|-------------------|------------|
| Delhi             | 1          |
| Haryana           | 18         |
| Himachal Pradesh  | 12         |
| Jammu and Kashmir | 19         |
| Punjab            | 20         |

|                            |            |
|----------------------------|------------|
| <b>Zone II – 83 KVKs</b>   |            |
| A & N Islands              | 3          |
| Bihar                      | 38         |
| Jharkhand                  | 24         |
| West Bengal                | 18         |
| <b>Zone III – 78 KVKs</b>  |            |
| Assam                      | 25         |
| Arunachal Pradesh          | 14         |
| Manipur                    | 9          |
| Meghalaya                  | 5          |
| Mizoram                    | 8          |
| Nagaland                   | 9          |
| Sikkim                     | 4          |
| Tripura                    | 4          |
| <b>Zone IV – 81 KVKs</b>   |            |
| Uttar Pradesh              | 68         |
| Uttarakhand                | 13         |
| <b>Zone V – 78 KVKs</b>    |            |
| Andhra Pradesh             | 34         |
| Maharashtra                | 44         |
| <b>Zone VI – 71 KVKs</b>   |            |
| Rajasthan                  | 42         |
| Gujarat                    | 29         |
| <b>Zone VII – 100 KVKs</b> |            |
| Chattisgarh                | 20         |
| Madhya Pradesh             | 47         |
| Odisha                     | 33         |
| <b>Zone VIII – 81 KVKs</b> |            |
| Karnataka                  | 31         |
| Tamil Nadu                 | 30         |
| Kerala                     | 14         |
| Goa                        | 2          |
| Pondicherry                | 3          |
| Lakshadweep                | 1          |
| <b>Total</b>               | <b>642</b> |

**Objectives of Krishi Vigyan Kendras (KVKs)**

Planning and conducting survey of the operational area in order to prepare the resource inventory with special reference to identifying the training needs of the farming community.

Planning and conducting production- oriented, need-based short and long duration training courses both on campus as well as in the villages for various target groups with priority on the weaker and the poor.

Developing and organizing non-formal educational programmes by way of field days, farm visits, farmers fair, radio talk, Farm Science Clubs etc. as the follow up information support to training courses.

Organizing farm science clubs, both in rural schools and in villages in order to induce the younger generation a liking for and an interest for agricultural and allied sciences and scientific farming through supervised projects.

Developing and maintaining the campus farms and demonstration units on scientific lines as the facilities for providing work experience to the trainees as also disseminating the latest technical know how.

Providing practical facilities of the Kendra to the teachers and the students of the vocational agriculture of the higher secondary schools.

Imparting some general education to rural illiterates and school drop-outs in order to make them not only good farmers but also better citizens.

Providing added training facilities in the areas for home making and nutritional education for rural community.

Gradually enlarging the training facilities to encompass other important areas such as home crafts, cottage industries etc. consistent to the requirements of the Integrated Rural Development in collaboration with concerned organization.

Implementing all such schemes of the ICAR and other related organizations which intend to strengthen the training programmes of the Kendra.

Conducting "On-Farm Testing" for identifying technologies in terms of location specific sustainable land use systems.

Organising training to update the extension personnel with emerging advances in agricultural research on regular basis.

Organising short and long term training courses in agriculture and allied vocations for the farmers and rural youths with emphasis on "Learning by doing" for higher production on farms and generating self-employment.

Organising Front Line Demonstrations (FLDs) on various crops to generate production data and feed back information.

In order to achieve the above mandates, the following broad objectives would help the KVKs to develop their specific objectives:

To promptly demonstrate the latest agricultural technologies to the farmers as well as extension workers of State Departments of Agriculture/Horticulture/ Fishery/ Animal Science/ NGOs with a view to reduce the time lag between the technology generation and its adoption.

To test and verify the technologies in the socio-economic conditions of the farmers with a view to study the production constraints and to modify the technologies to make them appropriate.

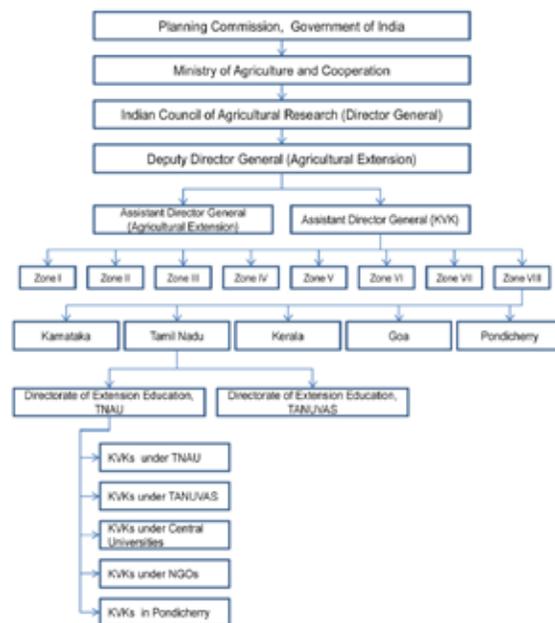
To impart trainings to the practising farmers/ farm women, rural youth and field level extension functionaries by following the methods of "Teaching by doing" and "Learning by doing".

To back-up with training and communication supports to the district level development departments viz; Agriculture/ Horticulture/ Fisheries/ Animal science and NGOs in their extension programmes.

The KVKs, thus are the down-to-earth institutions committed to vocational training, transfer of latest technologies,

on farm research and thus, serving as the light house for overall rural development in the district. The activities of the KVK include technology assessment, refinement and transfer, aiming to bridge the gap between the technology developed at the research institutions and its adoption at the field level by the farmers through demonstration of technology/ products etc. and training of farmers, rural youths and extension personnel. On the basis of "India-2002", there were 578 rural districts spread over the country and this figure has further been raised to 602 districts as per the latest data available on the internet report of NIC. In view of continuous increase in the number of districts, it is agreed to have one KVK in each district by the end 2017. Realising the importance of technology assessment, refinement and transfer, the Planning Commission has allocated Rs. 500 crores specifically for the establishment of new KVKs during Xth plan period. The governing body of KVK out lined the importance of two issues in the context of the present scenario of agriculture in India- (i) the technologies have to be assessed and refined before their transfer and (ii) a programme approach involving various technology components relevant to the farmers in varying farming situations will be required for a perceptible change. The concept of technology assessment and refinement is based on participatory mode ensuring greater scientists-farmer linkage and access to agricultural technologies generated by research systems to the farming community. For this, the role of KVKs are of immense importance for overall agricultural and rural development through its various research and technology transfer mechanisms.

### Krishi Vigyan Kendra (KVK) :Organizational and Administrative Setup



Authority of the KVK's is vested in the ICAR having its headquarter at Krishi Bhawan, New Delhi. The Council is a society registered under the Societies Registration Act 1860 of India.

The Director General, ICAR and Secretary, Department of Agricultural Research and Education, GOI, is the principal executive of the Council. He is supported by 8 Deputy Di-

rector Generals including a Deputy Director General (Agricultural Extension) who is responsible for implementation of the agricultural extension programmes in the counseling and giving advice to him on all policy issues related to extension programmes.

The DDG (Agricultural Extension) is the head of Agricultural Extension Division of the council which is one of the 8 divisions. The division is responsible for co-ordination of front line extension education programmes of the ICAR at national level. The DDG (Agricultural Extension) is assisted by 3 Assistant Director Generals (Agricultural Extension).

There are 8 zonal coordinating units located in eight zones of the country. Each ZCU is headed by a Zonal coordinator. Coordination and monitoring functions at the zonal level is being performed by the ZC unit.

The grantee/host institution has to provide overall supervision of the programme in the KVK. The programme co-ordination of the KVK is the principal executive officer of the respective Kendra.

### Conclusion

The need based teaching – learning events for making desirable changes in knowledge, skill, attitude and other attributes. The training are organized in two ways: on campus and off campus. The training has four clientele viz. Farmer, farm women, rural youth and extension functionaries. Timely activities undertaken for stretching out the technologies beyond limits of research institutes to intended farmers. These activities include organisation of field days, kisan melas, farmer scientist interactions, scientific visit, Diagnostic visit, celebration of important days, publication of scientific and technical information, radio and television broadcast, mobile messages and all types of agro advisories.

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