

## **OPEN LEARNING SYSTEM FOR EMPOWERING RURAL YOUTH THROUGH AGRICULTURAL TECHNOLOGY**

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### **Introduction**

The Open Learning System provides a means outside the school system for those who do not have access to formal education due to one or many other reasons. The total of those who do not have access to formal education is often bigger than those who continue to have formal education. In pursuance of National Policy (1986) on Education, Government of India established the National Open School in November, 1989 as an autonomous organisation under Ministry of Human Resource Development to provide an alternative continuing, flexible and developmental education to socially disadvantaged groups which constitute half of the population. The target groups are the poor, school age children in rural and isolated areas, especially those who are already at work. They can join National Open School (NOS) which occupies an important place in the national system of education and has its own distinct character.

The main objectives of NOS are :-

- i) to provide opportunities for continuing and developmental education at the school stage.
- ii) to provide consultancy services to the Government of India and states.
- iii) to serve as an agency for effective dissemination of information related to distance education and open learning.
- iv) to identify and promote standards of learning in distance education systems and state open schools and
- v) to exercise normative and coordinating functions while promoting standards in distance and open learning systems in the country.

### **The achievements of the NOS**

- Various aspects of quality management received continued focus. Additional measures were initiated for better learning and supervision, including orientation and training of AI teachers in interactive teaching; tele-conferencing; production of audio and video programmes and developing regional and field level student support services.
- NOS has received recognition from 108 Boards/Universities/other Certifying Institutions.
- A few new subjects - Psychology, Statistics, Philosophy, Sociology, etc. have been identified for introduction at the Senior Secondary Level in the academic stream. The curriculum is being designed and material, produced.
- Revision and updating of Senior Secondary subjects have been taken up. Material production has also been initiated on completion of course design and development of learning outcomes. The courses are being revised with uniqueness of functionality and relevance of learning and inclusion of optional modules in each subject.
- Self learning material in vocational stream at Secondary level produced for Word Processing, Jute Production Technology, Carpentry, Solar Energy Technician, Bio-gas Energy Technician, Laundry Services, Bakery and Confectioneries, Welding Technology.
- Self learning materials produced for the Senior Secondary level vocational stream includes Word Processing, Plant Protection, Water Management for Crop Production, Oyster Mushroom Production, Poultry Farming, Soil & Fertilizer Management, Furniture and Cabinet Making, Electroplating, House - keeping, Catering Management, Food Processing, Play Centres ; Hotel Front Office Management.
- New vocational course in Radiography (X-ray Technician), Computer application and Certificate in Library Science have been finalised.
- 35 Audio programmes, 56 video programmes, two radio spots and one advertisement film were produced. Audio-video cassettes have been duplicated for supply to the study centres.
- NOS programmes are telecast nationwide by Doordarshan - Channel - 1 (the Indian public television).

- One-way video and two way audio conferencing using Indian communication satellite is used presently to train teachers. This will soon be used to impart teaching to the learners as well.
- The NOS website ([www.nos.org](http://www.nos.org).) provides information about its programmes, courses, student support services etc. This will be extended to the Indian Open Schooling Network (IOSN) which will offer on-line some selected courses of NOS.
- In Open Basic Education lessons have been developed in all the subjects for level A out of the graded three level course corresponding to Preparatory, Primary and Elementary levels.
- The work on curriculum development was finalized in two Life Enrichment courses, namely, Science for All and Health for All.
- Secondary courses in five regional languages - Marathi, Telugu, Urdu, Kannada and Gujarati have been launched.
- Research studies on "Review of Open Schooling in India", Research paper "Financing of Open Learning System at the School Level in India" and "Quality and standard of Open Schooling" were finalized. In addition to "The Effectiveness of specially designed PCPs on the Performance of NOS learners in Science and Mathematics" were conducted by the academic faculty of NOS.

### **Students' enrolment and profile**

- Enrolment in NOS has shown a steady growth since its establishment. While 94,000 students were enrolled during 1996-97 about 1,12,214 were enrolled during 1997-98. Currently the National Open School has more than four hundred thousand students on its rolls from almost every state and union territory of India.

#### Annual Enrolment trends in NOS.

<b>Year</b>	<b>No. of students</b>
1989-90	49055
1990-91	40884
1991-92	34781
1992-93	53567
1993-94	62283
1994-95	64496
1995-96	75433
1996-97	93703
1997-98	112214
1998-99	130000

- NOS has a diverse student profile having young and old learners ranging from 14 years to as old as 89 years, living in different parts of the country. Most of the students are young adults between 18-24 years.
- The participation of students belonging to scheduled casts and scheduled tribes was about 13% and 10% respectively. These categories together with the women students and other exempted categories (like handicapped and ex-servicemen) accounted for nearly 57% of the students who were given substantial amount of subsidies.

### **Vocational Courses**

- A total of 6000 students from different states and union territories are enrolled in exclusive NOS Vocational Certificate Courses.
- One of the most innovative practices in National Open School is that vocational courses/subjects are offered in combination with other academic subjects at the Secondary and Senior Secondary levels, where about 20% students are offering one or two Vocational Subjects.

### **Student support services**

- NOS serves its clients through a network of study centres all over the county. These centres provide individualized support to its learners to facilitate the learning processes.

- At present there are about 880 Study Centres catering to about four lakh students all over the country. The study centres are also known as Accredited Institutions (AIs), Accredited Vocational Institutions (AVIs) and Special Accredited Institutions for Education of the Disadvantaged (SAIEDs).
- Regional Centres have become operational at Delhi, Hyderabad, Pune, Guwahati, Calcutta, Chochin, Chandigarh and Agra for monitoring and functioning of NOS programmes in these regions.
- As a first step towards globalisation of its educational services, NOS launched its study centres in the Middle East i.e. Dubai and Abu Dhabi. The aim is to extend educational facilities through the open learning system to non-resident Indians and other nationals settled there.

### **Material production and distribution**

- During the year 1998-99, 6.5 millions books have been printed.
- 1 lakh books were despatched per day the same year.

### **Examinations**

- NOS conducts examinations twice a year during May and November. Candidates are allowed to appear in one, two or all subjects and credits are accumulated till the certification criteria are fulfilled. A candidate can avail as many as nine chances to appear in public examinations.
- A total number of 1,20,047 students had appeared for the May'98 examination which is the largest number since 1989.

#### Number of students qualified:

<b>Year</b>	<b>Secondary</b>	<b>Sr. Secondary</b>
1991	14060	11970
1992	10028	8452
1993	13571	11642
1994	16966	17060
1995	9587	11062
1996	23223	13158
1997	27157	14697

- Ex-Secondary/Sr. Secondary students of NOS who have qualified in at least one subject but could not successfully complete the course in the mandatory period of 5 years are also eligible for fresh admission in the respective course. Credit of subject (s) passed in the previous admission will be transferred to the fresh admission and they may complete the course after passing the remaining subjects.
- Ex-Secondary/Sr. Secondary CBSE students who have passed in at least one subject and have not qualified in the course may seek admission in the respective NOS program. They will have the option to get the credit of maximum of two subjects passed in CBSE transferred provided these subjects are also available in NOS program. Thus to qualify in NOS program they will only have to pass in the remaining subjects.
- NOS has also started the program to set up a question bank in various subjects. The Examination Branch will make use of the questions from this bank to set up balance questions papers.

## Open learning system for rural youth

To start with a profile of rural India, the real image of India is not reflected in its metropolises or big cities, but in the diverse and complex matrix of her rural societies. Despite the large-scale migration to cities in recent years due to rapid industrialization and urbanization, still 672 million people live in villages and are dependent directly or indirectly on land based vocations. Agriculture will continue to be the main stay of Indian Economy employing larger sections of our society than industrial sector. The Indian farmers and agricultural labourers can not hope to develop unless agriculture becomes a remunerative occupation for them. The agro-industrial sub-sector has yet to unfold its potentiality for value addition to farm products and more employment. The agricultural development, like any other field, has to be based on the application of science and technology, and more so in view of decreasing land and water resources per capita.

### Profile of Rural India (Dass Gupta, 1998)

Total Geographical Area of India	:	33 lakh Sq. Km.
Total Population	:	934 million
Total Rural Population	:	672 million
Population below poverty line	:	40.4%
Farm Families	:	60 million
Total No. of villages	:	6.1 lakh
Total No. of districts	:	526
Ecological Zones	:	127
Working Population in rural area	:	78% of the whole country.
Contribution of rural India to GNP	:	30%
Contribution of rural India to export	:	20%

Open learning system could be directed to uplift rural life and to help the poor people in rural areas by first of all changing their attitudes. Most of the people in rural areas have the following attitudes:

- i) Success can be achieved without hard work;
- ii) Fear of taking decisions because of the risk;
- iii) Feeling satisfied even though it could be better;
- iv) Delay the work;
- v) Sending children to work is more important than sending them to school;
- vi) Poverty is an inheritance, once a family is poor it will remain poor;
- vii) It is not necessary for girls to continue their study.

Majority of the farmers and others involved have no mechanism of access to information or informal opportunity of acquiring skills in new agricultural technology. It is estimated that 75% of the students enrolled drop out by 10+2 level. This large human resource has no access to new technology. For sustaining higher agricultural growth it is essential to take benefits of agricultural technology to a wider section of people engaged in farm operations through an open learning system.

### NOS model of distance agriculture education

The country has a large network of agricultural institutions, which can be tapped for more than one purpose. Among agricultural institutions one of them is Krishi Vigyan Kendra (KVK), or Farm Science Centre. The KVKs are the grass-root level institutions devoted to extension education programmes including vocational training.

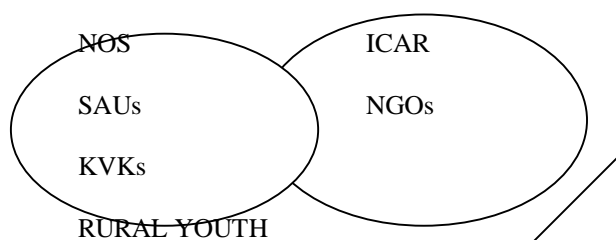
The scheme on establishment of Krishi Vigyan Kendras (KVKs) or Farm Science Centres was launched by the ICAR (Indian Council of Agricultural Research) primarily to improve the proficiency of the farmers, farmwomen and young farmers (Prasad et al., 1985). Vocational education, thus, was the major objective now in view of other extension projects being integrated with the KVKs. The objectives were enlarged to include (1) Vocational Training, (2) First-line demonstration of latest technologies, (3) in-service training of the field level extension staff, and (4) On-farm research/operational research.

The KVKs are grass-root level institutions established in the heart of rural areas within the Districts on a 50 acres farm with all facilities for residential & practical training of short duration. Campus training is also organized in the villages for poor resource farmers who can not afford to come forth to institutional courses. The training is all down-to-earth and tailor-made; they are organized on the principles of "teaching by doing" and "learning by doing". In other words, training is mostly imparted by giving work experience, rather than traditional lecture methods. No certificates are given for training of any length in order to avoid the white-collar job seekers.

There are 281 KVKs in the country. On an average, the KVKs are organizing over 5000 training courses of varied duration benefitting nearly 2.0 lakhs farmers, farmwomen, and farm youth. If the KVK continue to work at this speed it may require at least 100 years to cover each and every farmers in the district. So there is only option to go for distance education in agriculture.

To provide proportionate justice to the rural and disadvantaged group of population in general and rural youth in particular, there is need to establish linkages between NOS and ICAR to fulfil the need of education and training of rural youth.

### NOS – ICAR LINKAGE



NOS has established study centre for imparting agricultural technologies on the Krishi Vigyan Kendras through multimedia approach. The multimedia learning basically includes books and print material, Audio-Video cassette, Teleconferencing and classroom counselling. Since 1994 till now NOS programmes in agricultural training could cater to the need of over 2500 Rural Youth.

NOS has developed number of certificate programmes in Agriculture which are as follows:

S.No.	Course	Level	Duration (One Year)	Entry Level (10 <sup>th</sup> Pass)	Min.Age (16 Years)
1.	Plant Protection	Sr. Sec.	-do-	-do-	-do-
2.	Water Management for Crop Production	Sr. Sec.	-do-	-do-	-do-
3.	Oyster Mushroom Production	Sr. Sec.	-do-	-do-	-do-
4.	Poultry Farming	Sr. Sec.	-do-	Xth Pass	-do-
5.	Soil & Fertilizer Management	Sr. Sec.	-do-	-do-	-do-
6.	Dairy Technology	Sr. Sec.	-do-	-do-	-do-
7.	Animal Husbandry	Sr. Sec.	-do-	-do-	-do-
8.	Jute Production	Sec.	-do-	VIII pass	15 years
9.	Farm Implements & Machinery	-do-	-do-	-do-	-do-

**Agriculture courses identified for development:**

1. Crop Production.
2. Fish Processing Technology.
3. Inland Fishery
4. Seed Production Technology.
5. Vegetable Seed Production Technology.
6. Medicinal and Aromatic Plant
7. Horticulture
8. Post Harvest Technology
9. Rural Construction Technology
10. Veterinary Pharmacist-cum-Technician
11. Sheep & Goat Husbandry

**Conclusion**

The case study reveals that there is a need to draw a conducive system between ICAR & NOS to develop healthy attitude among Rural Youth towards work and life and to enhance individual employability opportunity. It is hoped that rural based agricultural courses offered by NOS as designed would be able to usher in a new era in economic and social development of Rural India.

**References:**

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