

DOI: 10.15740/HAS/AJHS/14.1/215-225

ISSN: 0973-4732 Visit us: www.researchjournal.co.in

A Review

Engaging youth in agriculture

Anjana Rai and Sukhdeep Kaur

Received: 17.11.2018; Accepted: 24.05.2019

■ ABSTRACT : India is primarily an agricultural country where more than 50 per cent of the population is involved in agricultural activities. As per 1951 census there were 69.7 per cent of agricultural workers in India which declined to 54.6 per cent in 2011. There is a lot of concern about engaging youth in agriculture, young people are not very much interested in continuing in agriculture because they don't see much prospect in the future of agriculture, they also don't see it is as an active profession in the long-run. Consequently, there is growing disenchantment among rural youth towards agriculture vocation and they find it much lucrative to migrate to cities to do even menial jobs. Large-scale migration of rural youth from farming to urban areas has caused concern among the agricultural policy makers, since, such a trend, if not checked, is likely to affect agricultural activities in the future. Thus, checking migration and retaining youth in agricultural sector is currently a big challenge. This paper has prepared from the secondary sources of information. It is the need of the hour to make agriculture occupation remunerative to sustain the interest of youth towards agriculture.

See end of the paper for authors' affiliations

Department of Extension Education and Communication

Management, Punjab Agricultural University, Ludhiana (Punjab) India

Email : anjanarai192@gmail.com

KEY WORDS: Engaging, Youth, Agriculture

■ HOW TO CITE THIS PAPER : Rai, Anjana and Kaur, Sukhdeep (2019). Engaging youth in agriculture. *Asian J. Home Sci.*, **14** (1) : 215-225, **DOI: 10.15740/HAS/AJHS/14.1/215-225.** Copyright@ 2019: Hind Agri-Horticultural Society.

India is primarily an agricultural country where more than 50 per cent of the population is involved in agricultural activities. As per 1951 census there were 69.7 per cent of agricultural workers in India which declined to 54.6 per cent (Census, 2011). It is estimated that percentage of agricultural workers of total work force would drop to 25.7 per cent by 2050 (Subramaniam, 2018). India is a young country and youth constitutes about 20 per cent of total population of India (Census, 2011). In the present scenario the interest of youth is declining towards agriculture. This noble profession of agriculture is taking the back seat among different sources of farmers' income due to decreasing profit when

compared with total cost of production (Anonymous, 2016 a).

Around 61 per cent of farmers said they would readily quit farming get alternative jobs in urban areas. Farming, according to them, has become a problem of high production cost and low income with very little promise of change (Singh, 2017). There is a lot of concern about engaging youth in agriculture, in many ways, young people are not very much interested in continuing in agriculture because they don't see much prospect in the future of agriculture, they also don't see it is as an active profession in thelong-run (Anonymous, 2013). The society largely looks down upon farming, as also families of prospective brides do not prefer farming youth. Consequently, there is growing disenchantment among rural youth towards agriculture vocation and they find it much lucrative to migrate to cities to do even menial jobs. The scenario of migration is very dangerous and thinkable because 19 per cent of the Indian population was in urban areas in 1951 and expected to jump to around 42.5 per cent of the total population by 2025 (Census, 2011). It has been observed that only 20 per cent youth of rural families are directly engaged in the agriculture as a source of employment which is an indicator of grim situation of agriculture in future (Kumar and Slathia, 2017).

Large-scale migration of rural youth from farming to urban areas has caused concern among the agricultural policy makers, since, such a trend, if not checked, is likely to affect agricultural activities in the future. Thus, checking migration and retaining youth in agricultural sector is currently a big challenge (Chander, 2018).

It is the need of the hour to make agriculture occupation remunerative to sustain the interest of youth towards agriculture. Rural youths too want all comforts of life like their urban counterparts and if profession of agriculture makes them capable enough to satisfy their basic needs and other genuine luxuries of life then attraction of rural youths towards agriculture is natural. The truth is the young India is running away from farming, they are running behind technology and software. Indian agriculture will receive a big boost if the country takes advantage of its young population and persuade them into the farm sector by making it lucrative. Keen interest and contribution of youths towards agriculture is must for the prosperity of agriculture sector in the country because youths have the energy to work, they want to excel in life (Kumar and Slathia, 2017).

Need to focus on youth:

Youth is period from adolescence to middle age. Age constitute the determining characteristics in the definition of youth by various agencies. The National Youth Policy initially (2003) defined the youth as in the age group 13-35. However, National Youth Policy, 2014 modified it and defined 'youth' as persons in the age group of 15-29 years (Verma *et al.*, 2017). As per India's Census, 2011, Youth in India constitutes one-fifth (19.1%) of India's total population. India is expected to have 34.33 per cent share of youth in total population by 2020. Youth being enthusiastic, vibrant, innovative and dynamic in nature is the most important section of the population. They show strong passion, motivation and will power which also make them the most valuable human resource for fostering economic, cultural and political development of a nation. A country's ability and potential for growth is determined by the size of its youth population.

The energy and passion of the youth if utilised properly, can bring huge positive change to the society and progress to the nation. Youth are the creative digital innovators in their communities and participate as active citizens, eager to positively contribute to sustainable development (Verma *et al.*, 2017). This section of the population need to be harnessed, motivated, skilled and streamlined properly to bring rapid progress for a country.

Young people are three times more likely to be unemployed than adults and more than 75 million youth worldwide are looking for work (ILO, 2014). Due to their limited access to assets (in particular land), markets, finance and education and skills training, youth are often unemployed or work informally – often in unpaid, very low-skilled, insecure and sometimes hazardous jobs (IFAD, 2012). The agricultural sector offers huge potential for job creation.

Expectations of youth from an occupation: *Fixed income*:

Jobs in corporate sectors are giving fixed income to youth but in farming monthly income is not fixed, there is a continuous fluctuation in income and it depends on so many extraneous factors like rainfall, weather, pest and insect attacks and policies of government (Bera, 2015).

Compensation:

High compensation from a job is expected like overtime wages, bonus pay, merit pay, insurances and standard vacation policy and pension plan but in farming no such compensation is given. Youths in farming, often complain that agriculture is not attractive enough in terms of compensation and conditions of service compared to what other professions like law, medicine or banking offer (Neelam, 2017).

Job security:

Jobs in service sector gives assurance that an employee has about the continuity of gainful employment

for his/her work. But continuous economic losses from farming force the farmers to quit farming and go for some other occupation.

Job satisfaction:

Money is one of the aspect of doing job but not the most important, the most important aspect in job is the job satisfaction. Whether or not a person enjoys the job. Many farmers have low self-esteem and they do not like farming they are just doing as they have no other options available (Srivastava, 2012).

Work and working conditions:

The work should not be too much laborious and everyone wants to work in air conditioned offices well furnished with clean and calm environment. But, the work of farmers is often strenuous, working hours are frequently long and they rarely have days off during the planting, growing, and harvesting seasons. Sometimes are exposed to contaminants such as pesticides. Exposure to very hot or very cold temperatures while working outside (Anonymous, 2017).

Factors influencing youth to move away from farming:

Economic factors: Low income:

Ranghnathan (2016) found that about 53.37 per cent of farm households earn income lesser than poverty line income. Bihar, Uttaranchal, Uttar Pradesh, Puducherry and Jharkhand had more than 60 per cent farm households earning less than poverty line while Telangana, Sikkim, Gujarat, Lakshadweep, Jammu and Kashmir, Haryana, D and N Haveli, Meghalaya, Punjab, Kerala, Chandigarh and Delhi had less than 40 per cent farm households earning below poverty line. According to NSSO's (2013) Situation Assessment Survey of agricultural households, the average monthly income of a farm household in was just Rs. 6, 426 per month in 2013 out of which the share of cultivation and livestock was just Rs.3,844 - implying 40 per cent of incomes earned by agricultural households were due to non-farm sources.

Farmers often talk about the high and rising costs of inputs, including water, seeds and pesticides. So how does the output they earn compare with the inputs they put into the land?Input costs work out to nearly 30 per cent of the total output an average farm household gets from a crop (Bera, 2018).

Low minimum support price:

Low MSP rates are fixed by the government and MSP is not set for all the available crops which is the biggest problem among farmers in India.

Small landholdings:

Youngsters are not able to get enough land to cultivate. All children get a share in their father's property that leads to division of landholdings. Cultivation on such a small area is not economically feasible (Ram *et al.*, 1999). A farm household needs to have at least 1 hectare of land to make ends meet every month. But given that over 65 per cent of households have less than one hectare of land, this means that two out of three farm households are simply not able to make ends meet (Kedia, 2018). The average size of the holding has been estimated as 1.15 hectare (Census, 2011). The average size of holdings has shown a steady declining trend over 2.3 hectares in 1970-71.

Social factors:

Low social status:

Farming has low occupational status. Farmers don't get much respect as compared to people from another profession. Farming stands at lowest ladder as the profession in the society. Girls do not want to marry a farmer, marrying a farmer means physically hard life (Kaundinya, 2017).

Parent's expectations:

Farmers don't want their children to take up agriculture as a profession. Parents always encourage their children to study to become doctors, accountants. The farmers wish their children to become professionals in other fields rather than agriculture, due to strenuous way of life and hardship experienced, thus, students' enrolment into college/University of Agriculture is one of the least compare to technological or other professional Universities in India. 50 per cent of the respondents were interested in farming but are not fully involved in agriculture because they were restricted by the family and society. A survey conducted in Delhi "When asked whether they would like to see their children engaging in farming only 18 per cent responded positively" (Study of Developing Societies, 2014).

Psychological factors:

Lack of interest and non-farming aspirations:

Only four per cent of young people were interested and considering a career in farming and food supply. The youth are not interested to continue as farmers due to the falling profitability and incomes in agriculture (Yadav, 2018).

Aspirations play an important role in influencing how young people make life choices. Many studies from different parts of the globe both from developing and developed nations point to this fact. Only a meaner proportion of 2.4 per cent of the youths wanted to be farmers (Talfere and Woldehanna, 2012). The survey showed that just 1.2 per cent aspired to be a farmer. While 18 per cent of the boys wanted to join the army or the police, 12 per cent wanted to be engineers. Young girls preferred teaching (25%) or working as a doctor or a nurse (18%). About 13 per cent of the boys and 9 per cent of the girls surveyed also said that 'any government job' is preferable (Bera, 2018).

As regards animal husbandry the occupational aspiration was in descending order as dairy (2.9), goat farming (2.1), poultry farming (1.3), fisheries (1.2), sheep keeping (1.1), piggery (0.9), bee keeping (0.8), lac culture (0.7), sericulture (0.5) As for as field repairing of tools was concerned workshop of farm machineries and equipment were the major occupation aspiration towards agribusiness development activities. Regarding value addition rice mill, pulse mill, jem, jelly, ketchup, oil extraction unit and flour mill were the occupational area preferred by rural youth (Singh, 2016).

Negative perception towards farming:

Youth perceive farming as boring, notprofitable and unable to support their livelihood, stressing and as a profession which require hard physical labour. Youth's attitude towards farming is mostly negative (World Bank, 2007). The pull factors of the urban area and the push factors of the rural areas have contributed towards the present attitudes.

They think agriculture would not afford them to enjoy the pleasures of owning a beautiful home, fast cars, the latest gadgets and mobile phones like what their colleagues in other jobs have access to (Neelam, 2017).

Farming is considered as default occupation among

the rural dwellers with little or no education and even no access to higher education may decide to take possession of family farm to continue farming activities (Wilson, 2008).

Some common perceptions like 'I never want to be a farmer, ever ... I don't to work under the sun; my skin will be darker. My mother said that I shouldn't be a farmer; the [earnings] are not enough to provide for life; it doesn't have a future; it'd be better to look for a job in the city. It is better becoming a factory worker; I don't have to work under the heat (Sawant *et al.*, 2014).

Stress:

Farming occupation encompasses all types of stresses to farmers; the farmers mostly experience unpredictable weather and financial problems as major stress factors (Khuresi and Somnundaram, 2018).The suicides among farmers all over India are the result of mental stress and this mental stress is most often caused by poverty and especially by indebtedness (Kumar, 2015).

Negative image of agriculture in school and colleges:

In primary and secondary schools, planting in the school garden has been used as a punishment for every offence committed at school by the children, which has made many young people hate agriculture (Anonymous, 2011).

In school, students in the faculty of agriculture are often treated as of little importance by almost everyone, while their peers in management sciences, law, computer and medical school are appreciated and held with high self-esteem. This diminishes the morale to study agriculture.

Admission of students into the faculties of agriculture is often by authorization, after being considered to have not enough grades for the subjects they had initially applied for. Students enrol in agricultural courses, do it as fall-back plan, not something they passionate about. They study agriculture because it is an easier alternative for the sake of having a paper degree.

Morale of professionals in the agricultural field is low, let alone the level of education in this field. This discourages many young graduates who opt to change carriers immediately after graduation to other lucrative such as banking.

The percentage of students in agricultural or

veterinary courses around India amounts to less than half a per cent of all undergraduate enrolment (Chavan, 2018).

Physical factors:

Inadequate and expensive irrigation facility:

Research study shown that agricultural workers of U.P., during the reasons behind not getting the better amount of the cultivation, were facing various problems of inadequate irrigation facility (58.17%) (Singh, 2015). Lack of efficient irrigation systems (46%), often refers to the need for drip irrigation systems, which remain unaffordable among farmers (Guilini *et al.*, 2017). Irrigation facilities are inadequate, as revealed by the fact that only 52.6 per cent of the land was irrigated in 2003–04, which result in farmers still being dependent on rainfall, specifically the monsoon season. A good monsoon results in a robust growth for the economy as a whole, while a poor monsoon leads to a sluggish growth.

Non-availability of labours/ high cost of labours:

A farmer can't look after his farm without the help of added labours. Farming has become very difficult to function without labourers and skilled workers. The migration to urban areas also made difficult for the availability of agricultural labourers (Kaundinya, 2017). According to a survey conducted in 2011 to assess the key reasons behind labour scarcity, 'higher wages in other locally available jobs' was ranked 'first' among various reasons identified. The survey reported that this was because higher wage rates prevailing in non-agricultural works like masonry, carpentry, electrical and plumbing, which were locally available, attracted agricultural labourers. Farmers feel that the rising inputs costs (including a higher demand of wages by the labourers) is due to the implementation of MGNREGA jobs which has helped labourers bargain for better prices from them (Singh, 2015).

High cost for buying and operating farm machinery:

Farming is not seen as a viable business for small farmers. The primary reason, apart from the high cost factor, was that a farm equipment was used only for a few weeks duration across the year, during the harvesting season.

Marketing problem:

In agricultural marketing transportation cost,

inadequate market infrastructure, lack of market information, lack of processing units, storage facility, price fluctuation were the major problems (Reddy and Kalasria, 2017).

Fluctuating market:

The prices keep varying every day. Sometimes the prices are very high, and sometimes the price is so less that the farmers don't even harvest the crop and leave it to animals to feed, as the cost of harvesting becomes more than the market price.

Middle men:

Middle men and retailers take the major share of profit. The farmer actually gets a lot less than the selling price. A study by Ali *et al.* (2012) revealed that farmers obtained only about 53 per cent of the price of rice, 31 per cent being the share of middlemen. In the case of vegetables and fruits, the share of farmers was even less-39 per cent in the latter.

Subsidies:

Government has implemented agricultural debt, wiever and debt relief scheme. Most of the subsides welfare schemes announced by the central and state government do not reach upto the farmers in reality. On the contrary, only big land holders are benefited by these schemes (Anonymous, 2014).

Risk and uncertainties in farming:

Uncertainty and risk go hand in hand with farming. Agricultural production is directly dependent on nature including, (droughts, floods, frosts, storms, cyclones etc.) and long-term climate (such as climatic change including greater variability due to changes in the greenhouse effect) and the ever-changing incidence of pests and disease (Ullah *et al.*, 2016).

Initiatives by Government for retaining youth in farming:

Skill training for rural youth(STRY):

Under sub-mission on agricultural extension (SMAE) of National Mission on Agriculture Extension and Technology (NMAET). Aimed at imparting skillbased training to rural youth on agri-based vocational areas in compliance with National Policy on Skill Development and Entrepreneurship-2015 in agriculture and allied areas to promote employment in rural areas (Anonymous, 2015).

Attracting and retaining youth in agriculture (ARYA):

ICAR has initiated a programme on "Attracting and retaining youth in agriculture". Aimed to attract and empower the youth in rural areas to take up various agriculture, allied and service sector enterprises for sustainable income and gainful employment in selected districts and to enable the farm youth to establish network groups to take up resource and capital intensive activities like processing, value addition and marketing (Anonymous, 2016c).

Rural entrepreneurship and vocational training:

Under the aegis of the National Institute of Agricultural Extension Management (MANAGE), ISAP is running an Entrepreneurship development programme (EDP) for unemployed agriculture and allied sector graduates in 12 states of India. The initiative is part of the Agri Clinic and Agri Business Centres (ACABC) scheme of the Union Ministry of Agriculture. After training, ISAP provides active hand-holding support to these trained agripreneurs for setting up their own business ventures.

National rural livelihood mission (NRLM):

NRLM aims at creation of opportunities for both wage employment and skill development for the rural youth, who lack skills in many areas of agricultural production and processing. National Skill Development Mission and the National Skill Qualification Framework are, thus, aggressively pushing the agenda of skill development to build the capacity of rural youth so that they are meaningfully employed in rural areas itself (Ministry Rural Dev, 2011).

Agricultural skill council of India (ASCI):

Considering the need for skilling the work force in agricultural sector, the agricultural skills council of India (ASCI) has been recently proposed by national skill development corporation (NSDC), which could be one ideal institution to train rural youth.

Punjab Government approved new courses and curriculum for skill development in various streams which would be offered to nearly 15,000 youths in the state annually. Skill training courses for unemployed youths and up skilling the already employed in specific fields including horticulture, agriculture and allied farming. As many as 900 youths would be trained in horticulture, gardening, landscaping, bee keeping, mushroom cultivation in the Punjab Agriculture University (PAU), Ludhiana.

The government enhanced the professional status of agricultural graduate by making agriculture as professional degree, so that more youth take up jobs in this sector.

The government has announced that agriculture students are to be given a licence to market and supply fertilisers and pesticides.

Ways to retain youth in agriculture:

Agriculture shouldn't be a career for only old people, and youth should not think that being a farmer amounts to getting their hands dirty, since technology has made farming more attractive.

Agribusiness development:

Itprovides the various employment opportunities in the areas of agricultural inputs, crop production, agro chemicals, fruit and vegetable cultivation, agricultural marketing and processing of agricultural produce. Agribusiness helps in remunerative farming which increases the level of income and employment in rural India (Bairwa and Khushwaha, 2012).

Agriclinics and agribusiness centres:

Agriclinicsare envisaged to provide expert advice and services to farmers on technology, cropping practices, protection from pests and diseases, market trends, prices of various crops in the markets and also clinical services for animal health which would enhance productivity of crops/animals and increased income to farmers. Agribusiness Centres are envisaged to provide farm equipments on hire, sale of inputs and other services for crop production (Bairwa *et al.*, 2014 and Chandra, 2003).

Food processing units:

Various small food processing units canbe established at small level for processing of various agricultural products like primary food processing units for grain processing, which includes rice milling, flour milling and pulses processing, Spice and horticultural products; dairy and livestock products like *Ghee*, infant milk powder, milk powder and cheese etc, fish and fish

products (Agrawal, 2016).

Dairy farming:

Dairy farming is considered as village industry in India. Increasing population and growing consumption of milk and milk products like *Dahi*, cream, *Paneer* indicate that there is a great potentiality for dairying in India. India's milk demand is likely to increase to 170 million tonnes by 2020 from the present 105 million tonnes (Bairwa *et al.*, 2014). Individuals with less risk taking nature but high obsession for agripreneuership may opt for setting up a small dairy farm that can generate him/ her income from the day one (Srivastava, 1989 and Bairwa *et al.*, 2014).

Poultry and piggery farms:

Poultry farming today is a huge business that is split into several operations including hatcheries, pullet farms for meat production, or farms for egg production. The poultry sector has a large growth and expanding market in changing business environment. The egg production has just 1.6 per cent share in the livestock value of the state but poultry are gaining importance in recent times because income elasticity of demand is high for these products (Singh, 2017). Although piggery is not a significant subsidiary occupation of the farmers in the country. Generally, landless labourers and some marginalized poor households in the urban areas are engaged in piggery (Bairwa *et al.*, 2014).

Fishery and fish processing:

Fish and fish processing sector is an emerging tool to agriculture. Fish and shrimp have good export potential but there is an immense lack of cold storage and modern processing facilities.

Goat farming:

Is the act of rearing goat in a farm for the purpose of producing milk and meat (Anonymous, 2013).

Strong market systems:

Efficient market informationcan be shown to have positive benefits for farmers and traders. Up-to-date information on prices and other market factors enables farmers to negotiate with traders and also facilitates spatial distribution of products from rural areas to towns and between markets. But, but, public market information systems have often been disappointing, with information disseminated too slowly, in the wrong form, or too infrequently to be of real use to market participants.

E-choupal:

The agribusiness division of ITC Limited set up 6,400 Internet kiosks called e-Choupals in nine Indian states, reaching about 38,000 villages and 4 million farmers. farmers get free information on local and global market prices, weather and farming practices. The e-Choupal also allows farmers to buy a range of consumer goods and agricultural inputs and services (sourced from other companies). The e-Choupal serves as a purchase center for ITC for 13 agricultural commodities.

New marketing linkages between agribusiness, large retailers and farmers are gradually being developed, e.g. through contract farming, group marketing and other forms of collective action (Bikkina and Turga, 2015).

Electronic national agriculture market (E-NAM):

Founded in 2016, it is envisioned as a unified national electronic market bringing interconnectivity to markers across the country. The market facilitates farmers, traders and buyers with online trading in commodities.

Farmers group and cooperatives:

A farmer group/ cooperative is a business entity owned and controlled by its members for their mutual benefit.

Advantages of marketing from a group:

Collection in one place to bulking of produce so that volume of produce can be achieved and the traders will be attracted to visit the farmer's place.

Regular supply is possible if proper planning and management is done

Price fluctuation can be managed if there are practices like contract farming, agreements etc.

Bargaining power improved.

Farm mechanization:

There is a need to enhance the level of farm mechanization in the country. Due to intensive involvement of labour in different farm operations, the cost of production of many crops is quite high.

Farm mechanization can be used an important tool for attracting youth and retaining them in agriculture. Traditionally agriculture involves lot of physical work and each of the agricultural activity used to take lot of time.

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Modern youth even in the rural areas are not ready to toil in their fields all day in the hot sun. They rather prefer to move into urban areas and work within a four walls, even for a less salary. Adoption of mechanization can help in the improvement of the situation to some extent.Punjab, Haryana and Western Uttaranchal are the major states where farm mechanization is concentrated which increases their productivity (Singh, 2015).

To raise income from agriculture and horticulture crops, farm machinery is the need of hour of every farmer. Farm mechanisation through upgrade of technology saves around 15 per cent seed and 30 per cent water and fertilizer each and increases the yield (Singh, 2017).

The government is establishing custom hiring centers for hiring farm machineries, at a subsidized rate, by small and medium farmers, who can't afford to buy their own. It is also supporting SHGs and rural development co-operatives in forming farmer producers organization (FPO), by which they can pool in the recourses and avail loans from banks that can be used to buy agri-machineries that can be used by the members of the group.

Youth can operate a custom hiring centre for farm implements.

Role of various agencies/institutesin retaining youth in agriculture:

Role of state agriculture universities: Training to youth:

Most of the agricultural extension programmes which we implemented since independence in India traditionally targeted the head of families for training and technology transfer. In extension studies too, we consider the head of family, mostly male as the respondent, though in every diffusion-adoption study we found the early adopters to be younger. Youth are more techno-savvy and they could access information and knowledge promoted through the new ICTs which uses computer, internet and mobiles. Young farmers often have greater capacity for innovation, imagination, initiative and entrepreneurship than older adults and these characteristics should be effectively harnessed by extension services to provide better livelihood opportunities for youth in agriculture.

Rural youth should be provided training at panchyat

level for taking up these agri-based income generating units as per their interest. Agricultural Universities are doing excellent job by providing vocational training to rural youths including both male and female to startup different agriculture related income generating units in the villages.

Proper exposure visits:

Should be conducted in their respective areas by concerned agencies on the farms of successful progressive farmers or agri-preneurs so that rural youths may get convinced by personally seeing their different farm activities which made them successful (Kumar and Slathia, 2017).

Agriculture Universities and KVks should make provisions to provide comprehensive information aboutschemes and subsidies in their various training programmes, campaign and other activities (Anand, 2016).

Farm youth clubs:

Farm youth may be mobilized as farm youth clubs (FYCs) so that it serves as a platform for rural youth to discuss issues related to farming, farm enterprises and skill development. Inter-country and inter-state youth exchanges may also be organized by these FYCs to share experiences on best practices and learning. ICAR/SAUs, state Departments of Agriculture and the Gram Panchayats may take a lead in this. "The young farmers association (YFA), Punjab" is involved in promoting and modernizing agriculture. The YFA, has started a programme called the future farmers foundation (FFF) to encourage the youth to take up farming as a viable and lucrative occupation to increase farm income, while maintaining sustainability in agriculture.

Role of Government:

At present, only a few crops get a minimum support price (MSP) guarantee from the government. This has created a vicious cycle. Farmers are growing the same crops every season to sustain their livelihoods. It is time to break this cycle and think beyond this stunted vision. The government must assure MSP for other crops as well. This will encourage the youth to take up farming without bothering about the market risks (Palanismy, 2017).

Agriculture subsidies need to be well targeted. The

criteria of disbursement of agricultural subsidies should be based on farmers' operational landholding for ensuring maximum coverage of small and marginal farmers (Anand, 2016).

More practical approaches at the ground level need to be taken for sustaining the interest of rural youth in agriculture such as formation of self-help groups, farmers clubs, commodity interest groups (CIGs) etc. and their linkage with different banks mainly NABARD for financial support at low interest rate for starting various agriculture related enterprises (Palanismy, 2017).

The government must increase the number of scholarships for agriculture students to enhance research and development. This will help them become better professionals and improve their earning capacities (Pridarshani, 2018). It is a pity that management students, and not students of agriculture, are recruited by institutions like the National Bank for Agriculture and Rural Development (NABARD).

The government has to shift its emphasis on the teaching of sciences in secondary schools that mainly focuses mathematics, biology, physics and chemistry to the agriculture subject for retaining youth in agriculture.

Role of educational institutions:

Experience has shown that students with rural background are more comfortable in assimilating knowledge and efficient in practical performance in Agriculture Universities. The admission policy needs to encourage the graduates who are willing to work on the field (Aulak, 2018).

Agriculture as a subject in the school curricula:

Primary and high school education could include modules on farming, from growing to marketing crops. This could help young people see agriculture as a potential career (Anonymous, 2017).

Role of media:

Success stories of the innovative young farmers/ agripreneurs including those youth who have successfully launched agri-ventures/ agri-entrepreneurship in different parts of the country may be highlighted through radio, TV and newspapers to motivate other young farmers. The community radio too can play vital role in encouraging and making young farmers aware about the possibilities in agricultural sector. Extension staff should effectively use the mass media and also the social media to encourage and support rural youth to play meaningful roles in agricultural transformation (Chander, 2018).

Conclusion:

India is losing more than 2,000 farmers every single day and that since 1991, the overall number of farmers has dropped by 15 million.Involvement of youth is epic necessary for agricultural development while at present youth involvement is below the mark despite of having agricultural education degree (Chander, 2018).

Generally, youth are willing to adopt new ideas and technologies and, therefore, government, SAUs and extension services should target youth to transform agriculture. The youth could be the ideal catalyst to change the poor image of persons involved in agriculture, especially in the rural communities given their greater possibility to adapt new ideas, concept and technology which are all important to changing the way agriculture is practiced and perceived.

By encouraging and supporting youth participation in agriculture improving their capacities and increasing their involvement will also help in changing the negative perception about farmers as "uneducated and unskilled, physical labourers engaged in a glamour less vocation with extremely low economic returns"

There is urgent need to enhance the agricultural graduates' participation in agricultural production.

Important identified constraints are hard work, no assurance of profit, lack of incentives in farming, lack of access to farm implements and inputs, lack of insurance facility in agriculture and inadequate credit facilities. All these problems need attention to encourage the youth's participation in agriculture.

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