Unleashing Youth Potentials in Developing the Agricultural Sector

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ABSTRACT

The participation of youth in agriculture is imperative given the fact that the hope and aspiration of agriculture, and the nation for that matter, rest on their shoulders. This successful and persistent youth in agriculture would pave their paths to be nucleus farmers. Youth involvement in trying out or getting involved in agriculture very much depends on their perception on agriculture itself. This research seeks to identify the perception of youth on agriculture and in particular it seeks to: 1) study the respondents' profiles among the youth link to agriculture; 2) to study their perception on agriculture; and 3) to identify the agriculture education programme provided for the youth. The positive view on agriculture that is suggested by the research indicates that the youth do not totally deny or place a negative image on agriculture education among youth either by the government or the private agencies. In general, the young farmers are unaware of the programmes organized by the organizer of the programme. Effective agriculture education actually depends on how far and significant the commitment given by every party. Multiple efforts are needed to ensure the effectiveness of an education programme.

Keywords: Youth, successor farmers, perception, Malaysia agricultural development

INTRODUCTION

The importance of youth in all facets of national development has been amply noted in the many national development policies of Malaysia because they are the future stirrers of the national affairs and the cream of our society.

Young people are not only the vessel that transmits the practice of agriculture from the present generation to the future but they are the agent of change in advancing agriculture and the communities in which agriculture is practiced. Having been noted, it is deplorable to see a lack of or reduced participation of young people in agriculture and related activities. This throws light on the need to arouse the youths to step-in and fill this vacuum in agricultural societies. This section of the paper laments on the literatures available on the subject of youth participation in agriculture.

Be it in any community, agriculture or otherwise, youth and the community development are interwoven. This is particularly important for agricultural communities where a seamless succession of participants in the practice cannot be overlooked. However, as observed by Armistead and Wexler (1997), "this vital interdependence of youth development and community development is too often ignored".

But who are these youths? Why are their participations in agriculture important? Youth, according to the United Nations' general assembly, are the persons who fall between the ages of 15 and 24 inclusively (Idriss, 2003). The

Received: 23 April 2010 Accepted: 2 March 2011 term differs slightly from one nation or group nations to another.

As part of the much cherished human resource of Malaysia and the pillar for the nation, they must be developed and included as part of developing quality and productive human resource. Although economic liberalization and privatization policies are thought to have been the catalyst to the economic development currently achieve in Malaysia, if the youth are unable to continue the current success enjoyed then it will not last in generating future development, causing slow down in the economic development.

The government of Malaysia through development programmes has always included youth in preparing the agenda on the education of youth towards agriculture. Such opportunities to be involved in agriculture are always made available to them with support from various agencies to ensure success in the youth career in the agricultural sector that they participate. According to the Department of Statistics (2010), the rural youth (15 until 39 years old) is the highest population with 4, 000 people.

The government has executed the Eighth Malaysian Plan (8th MP), 2001-2005 in the period where youth development programmes were carried out to upgrade the role and the participation of youth in the development of the nation. The programmes included education and training skills while at the same time fostering discipline and independence, cooperation within the society and building quality leadership among them.

Results from this plan have showed positive improvement in line with its objectives. It was indicated that youth, within the age range of 15 until 39 years old, accounts for 41.5% out of the total population in 2005. During the 8th MP, the average youth has increased by 2.4% annually from 9.85 million in 2000 to 11.10 million in 2005 (Table 1).

Meanwhile, the total number of youth who were working in all sectors in 2005 was 6.67 million or 60.3 % out of the total youth population compared to 6.16 million or 62.9% in 2000. Most of them were working at the manufacturing sector to grab the increasing opportunities. This sector increases to 24% in 2005. The next sector is commercial, retail and wholesale, as well as hotel and restaurant with 23.8 % followed by other services at 18.9% (Refer Table 2).

According to the career categories, the percentage of youth that worked in professional and technical areas had decreased from 12% in 2000 to 8.7% in 2005. Other than that, the percentage of youth who worked in administration and management had increased to 2.8%. Meanwhile, despite the higher education achievement among the youth, those who worked in clerical and related careers had decreased by 1.6% during the same period. (Refer Table 3).

The youth development programme during the 9th Malaysia Plan (9thMP) stresses on empowering the youth to enable them to be more involved in building the nation, strengthening the nation and social integration to be the role models in the society. The strategic pillars

A so Crosse	Million People			% out of the Total		
Age Group	2000	2005	2010	2000	2005	2010
Below 14 years old	8.00	8.72	9.18	34.0	32.6	31.7
15-39 years old	9.85	11.10	11.65	42.0	41.5	40.2
More than 39 years old	5.64	6.93	8.13	24.0	25.9	28.1
Total	23.49	26.75	28.96	100.0	100.0	100.0

 TABLE 1

 Total Population According to Age Group, 2000-2010

Source: Economic Planning Unit

Unleashing Youth Potentials in Developing the Agricultural Sector

Sector	'000 People		% out of the Total		Average Annual Growth Rate (%)
	2000	2005	2000	2005	RMK 8
Agriculture, Forestry, Farming and Fishing	770.9	751.1	12.5	11.3	-0.5
Mining and Quarry	17.9	21.2	0.3	0.3	3.4
Manufacturing	1,731.0	1,603.5	28.1	24.0	-1.5
Electricity, Gas and Water	25.7	29.2	0.4	0.4	2.6
Construction	498.7	598.6	8.1	9.0	3.7
Finance, Insurance, Property and Business Service	351.4	493.4	5.7	7.4	7.0
Transportation, Storage and Communication	266.4	326.0	4.3	4.9	4.1
Commercial, Retail and wholesale, Hotel and Restaurant	1,197.1	1,588.8	19.4	23.8	5.8
Other Services	1,303.6	1,259.5	21.2	18.9	-0.7
Total	6,162.7	6,671.3	100.0	100.0	1.8

TABLE 2 Youth in Human Resource According to Sectors for 2000 and 2005

Source: Economic Planning Unit

Occupation	'000 People		% out of the Total		Average Annual Growth Rate (%)	
-	2000	2005	2000	2005	RMK 8	
Professional, Technical and Related Careers	736.6	1,248.8	12.0	18.7	11.1	
Administration and management	223.9	425.5	3.6	6.4	13.7	
Clerical and Related Careers	779.1	736.7	12.6	11.0	-1.1	
Service, Sales and Related Careers	1,430.7	1,023.9	23.2	15.3	-6.5	
Agricultural Workers	764.9	654.7	12.4	9.8	-3.1	
Manufacturing and Related Careers	2,228.0	2,581.7	36.2	38.7	3.0	
Total	6,163.2	6,671.3	100.0	100.0	1.6	

TABLE 3 Youth in Human Resource According to Occupation in 2000 and 2005

Source: Economic Planning Unit

in developing youth are: 1) empowering the youth for the future by increasing the access to education and training; 2) intensifying youth participation in youth organizations; 3) fostering the spirit of competition among the youth; 4) strengthening the legal framework for youth development programme and; 5) encouraging unity and social integration in the nation. In the 9th MP, the youth agriculture development programme has been introduced to encourage and attract the interest of more youth in implementing projects whereby they will be given training and counselling to carry out commercial agricultural-based activities. The implementation of this programme includes the setting up of the agriculture-based business

organizations and encouraging the use of modern technology to establish a young and modern generation of young farmers.

LITERATURE REVIEW

Edginton, Kowalski and Randall (2005) defined youth as a very vital asset in the economic development. They signified and portrayed the belief, values and idea of the parents and function in fulfilling the ambulation, vision future and aspiration. At the same time, the youth today initiate and bring new perspective to our culture.

According to the Successor Theory, youth is also the future successor to farmers who will shoulder the role of developing regional agriculture. There are many definitions of successor farmers, among them are based on Tabata (1996) theory. He defined successor farmers as a) the successors who are responsible to changes in innovation, technology and the management of production development; b) as successor to agriculture production and successor to regional agriculture development. Wataya (1959) referred successors to those who realized the productivity and high profit effort based on time or current era. They are the social cluster to productivity development known as the successor of production.

Therefore, the meaning of successors, as addressed by Tabata (1996), is those who are responsible to changes in innovation technology and the management. Thus, the level of changes in measuring or planning for new and innovative successors must be beyond the meaning of "farmers who simply farm only".

On the youth development in agriculture, Norsida (2008) stressed that the perception and acceptance of the youth on agriculture is discouraging, despite the need for the younger generation to inhering and move the national agricultural sector. This problem has to be viewed as an important agenda to be solved because if it is left unaddressed, within one or two decades, the country will face lack of human resource particularly in agriculture. The paradigm of the youth on agriculture needs to be changed so that they are interested to be involved in this sector. It can be done by offering high income from agriculture and providing capital support and consultation as well as conducive environment to encourage them.

However, with various issues and challenges faced by youth today, more agencies should be involved in planning the youth development. In general, youth development involves a mental, physical, social and emotional development process to make the youth ready to live in a productive and satisfying environment in a community or society.

Srisak (1997) who studied the youth development programme in Thailand has underlined several qualities that the youth must have namely: 1) having healthy family relationship; 2) having healthy physical and mental, balanced self development in line with their age, sound personality, respect and self confidence; 3) High awareness of their culture and understanding religious practice, life and local values; 4) Having various communication skills, knowledge and understand the latest information system and its usage in the Thai cultural context; 5) Loyalty in democracy and willingness to sacrifice for the common interest; 6) Understanding of their roles, rights and Thai laws-which are related to the daily life and respecting their rights-the rights of other people; 7) A simple life, awareness of social responsibilities and good management; 8) Awareness of the responsibilities to the environment as the source of natural and sustainable development; and 9) Ability to increase one's self-directed development.

Hazelman (n.d) in his research regarded the best training are done by three Asian countries namely Japan, Philippines and Thailand to educate and train the rural youth. He found that factors that propagated the success in training youth in the rural areas were: 1) The target group in developing training was chosen based on the need of the group member through common consent; 2) Training given was using the practical learning method by sharing knowledge and skills among the participants; and 3) Club members also given on the job training from the group income which is obtained from the activities done.

Regarding to community and youth development, Armistead and Wexler (1997) stated that communities are dependent upon the minds, hearts and hands of their young people and youth are dependent upon the viability, vitality, protection and attention of their community.

Globally, there is recognition that the participation of youths in the development of agriculture is paramount and this is evident in policies and programmes initiated by the government to encourage young people to be engaged in agriculture. The Federal government of Nigeria, as argued by Jibowo (2005), has introduced various agricultural development schemes with the aim of encouraging the youth and boosting food production and farmers' income through the provision of agricultural infrastructure, inputs and effective extension work at the federal level. Such programmes are seen to have trickled down to local government as well.

Muhammad-Lawal, Omotesho and Falola (2009) in the paper entitled "Technical Efficiency of Youth Participation in Agriculture: A Case Study of The Youth - In - Agriculture Programme in Ondo State, South Western Nigeria" recommended that for youth to be effective agents in improving agricultural programmes in Ondo State, South Western Nigeria, they need support in accessing inputs, gathering relevant knowledge and experience, building effects for agricultural practices and adequate extension service.

In addressing the state of youth participation in Philippines, Ria Janine (2008) described the situation as "declining enrolment rate in agriculture-related courses, low participation of the Filipino youth in agriculture-related activities and the persistence of problems that threatens the sustainability of Philippine agriculture".

Remarking on the state of affairs of youth participation in Taiwan, Chen (2008) fronds at the awareness of the youth on agriculture describing them as being indulged in "the material world, [and] are rarely aware nowadays of where their food comes from. Most of them don't even know how sustainable food production might benefit agriculture and the natural environment".

In Botswana, the government is cognizant of the generally lack of youth participation in agriculture and to encourage them, the government made alliance with a credit facility CEDA to launch a specific programme called Young Farmers Fund in April 2006, to enable the youth to get credit in order to establish agricultural businesses. Since the youth had a problem of accessing land, they were allowed to lease land so that they could do their businesses at low premium rates and for a long grace period.

Addressing the need for young people to take centre stage in stirring the course of agriculture in the Caribbean, Suriname (2010), underscored that youths participation in agriculture is a necessity because: there is compelling evident that the age of the present farmers is getting old; persistent skyrocketing of regional food import bills; a mindset changed on how people view farmers in terms of their status; to address the high unemployment rate in the region; to increase agricultural productivity and hence food security; to address the rising crime among youth by making them engaged in something meaningful.

In a high level 2010 UN Economic and Social Council (ECOSOC) luncheon meeting on the importance of women participation in agriculture. Nereide Segala Coelho, the grassroots leader and a woman farmer, Rede Pintadas, from Brazil could not resist except to note that the "importance of youth participation in agricultural production and rural development and identified innovation, partnerships, and technology as critical for increasing productivity. Among her main recommendations were to: learn how to utilize all local natural resources; combine popular with scientific knowledge; utilize proper technology for food production: water storage, irrigation, technology, organization of production, and distribution; encourage the creation of women-led organizations and initiatives; guarantee land access to women; engage the youth; and see food as a generator of life." This is a significant indication of the premium placed on youth taking on agriculture.

Russell (1993) was convinced that the role of youths in agriculture needs a relook from a holistic perspective in the United States and opined that "Colleges of Agriculture need to address these complex problems by focusing resources on youth development needs. Such an initiative should be aimed at communicating a more positive image of agriculture to young people and reaching and creating a larger pool of youth".

He went further to suggest the following objectives for colleges to rejuvenate agriculture into the limelight. He said colleges needs to: 1) Establish a special task force on youth development in and about agriculture to draft a plan to implement this new college priority; 2) Request new campus resources and reallocate existing resources within Colleges of Agriculture to initiate this programmatic thrust of the colleges; 3) Involve all academic units of the colleges in assuming appropriate roles and responsibility for youth development in and about agriculture as a coordinated, high-priority initiative in each state.

PROBLEM STATEMENT AND OBJECTIVES OF STUDY

The government has given deserving attention to the current agricultural sector, indicating the premium the government placed on the sector and the development it generates for the nation thereto. However, the development depends on too many factors including the role played by the actors in agriculture namely the farmers, entrepreneurs and the government.

In order to fulfil this objective set by the nation, the farmers need to move and spearhead the development. It is hoped that the young farmers in the agricultural community are productive, creative, imaginative and highly competitive. However in reality, although there have been many programmes and plans for agriculture education organized by the relevant ministries and agencies, the youth involvement in agriculture is still not encouraging. Youth participation in agriculture education depends on many factors, among them are the perception on agriculture, knowledge and open-mindedness on information related to agriculture education programmes, curriculum and the content of the programme and others. Perception and positive view among the youth on agriculture would indicate how they accept and view the agricultural sector itself whether it is negative or positive..

Interest is among the factors in motivating the youth to choose agriculture as a career. Interest can be fostered through exposure to knowledge on agriculture at a very young age. However, there are questions that need to be answered; are the youth well exposed since the very beginning to be aware of the education programme that they can enrol in; are there ample opportunities provided to them; is the government effort sufficient in providing the current agriculture education programmes; how do they want the careers in agriculture to be perceived;? do they see it as a profession that demand high expertise, high entrepreneurship level. The youth's view on agriculture in general is vital because at least they can evaluate the contribution and the importance of the agricultural sector to the development of the nation. Today's youth may view agriculture as a way of life, a satisfaction, a traditional culture or as an indicator to every plan in youth development programme in agriculture.

Generally, this research seeks to identify the perception of youth on agriculture and in particular this research seeks to: 1) study the respondents' profiles among the youth link to agriculture; 2) study their perception on agriculture; and 3) identify the agriculture education programme provided for the youth.

METHODOLOGY

Research Concept

As a guideline for the research, a research concept has been determined as follows. Youth in research is categorized into beginning, middle and final level according to the level of knowledge on agriculture and also their experience in agriculture. In this research, it is assumed that there are different categories of youth and their involvement in agriculture does not provide the answer to their different views, thus this will yield a good result for research or guideline for the youth education programme in agriculture.

Youths' Perception on Agriculture

It is vital to know how youth perceive agriculture. Their views on agriculture or careers in agriculture can be divided into two either positive or negative. The most prominent positive and negative views seen among them can be the answer to the current status of their r views on agriculture in general. From the positive perspective, agriculture is a promising career, agriculture is good and it has a potential to be developed, agriculture is a career that youth must be involved in to help future development of agriculture include; a high risked sector, not a high status career, not glamorous and looked down upon, uninteresting and tiring career.

Factors that Prevent Youth Involvement in Agriculture

There are various factors for the lack of youth involvement in agriculture. By studying the various factors, the problem of youth participation in agriculture can be addressed according to the importance. If all the prerequisites are fulfilled, would the youth still participate in agriculture? The findings found the answers to the research questions of how far youth are interested directly or indirectly in participating in agriculture. The factors that prevent them from participating are; lack of capital, bureaucracy in the management related to agriculture, lack of technical knowledge and management, lack of interest and having no desire.

Agriculture Education Programme

In order to upgrade the interest, knowledge and participation in agriculture, a strong agriculture education programme must be planned and implemented. Are the youth today aware of the existence of agriculture education programmes especially designed for them? If not, does the information reach the target group effectively? If the youth know the existence of agriculture education programme or the wide opportunities in agriculture education, they may be more willing to participate. There is an assumption that if the youth join in the agriculture education, their participation in this sector would increase. Therefore, knowledge in agriculture can be fostered at the early age to instil the interest of youth in joining this sector in the future. Some examples of education programmes include Agriculture Institute programme, Agricultural Science programme at Technical and Vocational High Schools and Agricultural College programme.

Sampling and Data Analysis

The respondents are categorized into six groups based on their interest : 1) The students who are currently enrolling in agriculture education programmes in technical and vocational high schools; 2) The students who are currently enrolling in agriculture education programmes in Agriculture Institute; 3) The students who are currently enrolling in agriculture education programmes in university; 4) Youth from Agriculture Incubator and Agriculture College Programme; 5) Agricultural entrepreneurs who actively involves in agriculture activities; and 6) Youth who are not involved in any agriculture education programmes or working in the agriculture sector at several selected areas in Kedah, Kelantan, Perak and Selangor (Table 4). The total number of respondents are 1, 433. Respondents in this research refer to youth within the age 16 years old until 40 years old. The questionnaire consists of questions that have been tested to ensure its reliability and validity.

Reliability is the consistency of measurement, or the degree to which an instrument measures the same way each time it is used under the same condition with the same subjects. In short, it is the repeatability of a measurement. A measure is considered reliable if a person's score on the same test given twice is similar. Alpha coefficient ranges in value from 0 to 1 and may be used to describe the reliability of factors extracted from dichotomous (that is, questions with two possible answers) and/or multi-point formatted questionnaires or scales (i.e., rating scale: 1 = poor, 5 = excellent). The higher the score, the more reliable the generated scale is. The value of 0.7 is considered as acceptable reliability coefficient but lower thresholds are sometimes used in the literature. For example, if the Cronbach alpha for a set of scores turns out to be .90, we can interpret that the test is 90% reliable, and by extension it is 10% unreliable (100% - 90% = 10%). Validity is often assessed along with reliability - the extent to which a measurement gives consistent results. Descriptive statistical tools like frequency counts and percentage were used to analyze the data.

The justification why more respondents have background knowledge or experience in agriculture was chosen in this research because the researcher feels that youth who are knowledgeable in agriculture tend to give more accurate response compared to youth who do not have any knowledge and experience in agriculture. If they are not involved in agriculture but having background education in agriculture at secondary school level, then they are unable to provide a concrete response when asked about this topic. However, as a comparison or in order to get certain responses, the views of youth who are not involved in agriculture are also taken into account.

RESULTS AND DISCUSSION

Respondents' Profile

The results of the research on the respondents' background information are shown in Table 5. The highest number of respondents is from 16 until 20 years old with 49.3% out of the total number of respondents and they are studying at Technical and Vocational High School majoring in agriculture sciences. Meanwhile, youth who are from 31 until 35 years old is the lowest with (3.5%) while the average respondents' age is 21 years old. It is found that 55.5% of the respondents are males and 44.5% of them are females from various races.

The results of the research also found that 1.5% of the respondents at least have obtained a minimum education of Standard 6.. The highest number of respondents that is 503 or 35.1% passed their high school certificate (SPM).

No.	Category	No. Respondents (n)	Percentage (%)
1	Youth who is currently or have completed agriculture education programs at Agriculture Institute	196	13.68
2	Youth from Technical and Vocational High Schools	424	29.59
3	Youth among agricultural entrepreneurs	223	15.56
4	Youth who is currently enrolling in Agriculture Science Program at the local university	170	11.86
5	Youth without any agriculture education	239	16.68
6	Youth from Agriculture Incubator and Agriculture College Program	181	12.63
	Total	1, 433	100.00

TABLE 4Categories of the Respondents

Pertanika J. Soc. Sci. & Hum. Vol. 20 (1) 2012

This shows that at least the respondents have completed Form 5 before seeking employment.

 TABLE 5

 Respondents' Background Information (n=1433)

Demographics Profile	Percentage (%)
Age:	
16-20 years old	49.4
21-25 years old	35.7
26-30 years old	7.1
31-35 years old	3.5
36-40 years old	4.3
Average: 21.40	
Sex:	
Male	55.5
Female	44.5
Highest Education Level:	
Standard 6	1.5
SRP/LCE	19.3
SPM/MCE	35.1
STPM/Certificate	24.9
Diploma	5.4
First Degree	13.6
Masters Degree	0.1

RESPONDENTS' PERCEPTION

Perceptions on Agriculture Sector

Respondents' interest to venture into agriculture very much depends on their perception on agriculture or how they view the agriculture sector. They think that career in agriculture is promising if it is done properly (92.2% agree). Some believe that this sector has some potentials if it is given due attention by all relevant parties. Other than that, the respondents feel that the youth involvement will increase with more exposure and information. Such positive perceptions obtained from the respondents showed that youth do not place any negative image on agriculture (Refer to Table 6).

The conclusion that can be drawn from the respondents' perception is that all parties have to draw more interest for the youth to be involved in

agriculture by providing incentives and support from every aspect. It is their own awareness to get involved without fear of shouldering any risks. They have to shift their paradigm and believe that careers in agriculture are also a professional career demanding sound technical and management skills. This sector has to prove that it is a sector that can generate high income and provide career and business opportunities for those who are wiling to work hard in it.

Factors that Prevent Youth from Getting Involved in Agriculture Sector

There are various physical or mental factors that hinder the youth from getting involved in the agriculture sector. From the physical perspective, it is found that lack of capital (88.1%) is the main problem since involvement in agriculture demand high capital. Other than that, other factors that prevent them are; bureaucracy in various matters related to agriculture (67.3%), lack of knowledge in terms of technical and farm management (66.6%), lack of sufficient exposure in agriculture (64.1%), infrastructure and insufficient facilities to attract more youth to stay in the village, lack of source and difficulties in obtaining relevant information (Refer Table 7). From the mental perspective, 67% of the respondents are afraid to try and take the risk, to try., fear of the public perception and society acceptance, fear of unstable income returns and profits, lack of interest and willingness and also lack of strong support from the family and the community.

The Need and Readiness of Youth on Agriculture Education Programme

Various agriculture education programmes have been and are currently organized to develop agriculture education among youth either by the government or the private agencies. This education programmes are organized at secondary school level up to tertiary level (universities). The mushrooming of agriculture schools, institutes and colleges to educate and train the youth in agriculture are concretive

Norsida Man

TABLE 6Youth Perceptions on Agriculture (n=1433)

Positive Perceptions	(%)
It is a promising career with benefits if done properly	92.2
A good and potential sector	81.6
It is a career that youth should be involved in for the sake of future agriculture development	77.6
Careers in agriculture is noble and blessed since they are working with the soil	76.5
The location of the agriculture areas does not prevent most of them who are from the rural areas to participate in agriculture	76.4
It is an area that they are able to be involved in given more exposure about it	75.4
It is a career that can give satisfaction and experience	68.1
It is a career that must be given attention	65.0
It is a career that must be regarded as professional career and demanding high skills	63.6
Working as a farmer is a way of life that can be fully enjoyed	56.0
It is a traditional career that must be inherited and proud of	47.0
Negative Perceptions	
It is a high risked career	33.1
It is not a high status career, not glamorous and looked down at	20.8
It is not a fun career and tiring	16.3
Low return in agriculture and takes a long time to enjoy the returns	16.1
The last career choice	13.7
It is a career that is only suitable for those living in the village and rural areas	10.3
It is a career discouraged by family members and friends to be involved in	10.3

efforts by the government and the private agencies in producing young and knowledgeable farmers.

In general, the young farmers are unaware of the programmes organized by the government or the private agencies. This shows ineffective communication for the beneficiary (youth) and the organizer of the programme. Thus, it can be said that youth have to be more proactive with the current situation while the organizer of the programmes has to publicize their programmes more effectively. However, many youth particularly students have participated in the programmes organized. This shows that the students have high interest to increase their knowledge if there are suitable programmes offered to them. The government has to put more effort in increasing the youth interest and developing this sector in the future. Other than

that, the trainers' capability and high knowledge play a vital role apart from effective training programmes (Refer to Table 8). The findings of this research also discovered that 95.7% of the respondents agree that agriculture must begin at the primary level in order to foster youth interest in agriculture and 90.2% of respondents agree with the statement "A strong formal and informal agriculture education programme is needed at the primary level".

CONCLUSIONS, IMPLICATION AND RECOMMENDATIONS

Improving the Youths' Perception on Agriculture Sector

There is a need for continuous effort to draw higher youth participation in the agriculture sector by heightening the interest and providing

Unleashing Youth Potentials in Developing the Agricultural Sector

TABLE 7 Respondents' Opinions on the Factors in Preventing Youth from Getting Involved in Agriculture (n=1433)

Factors Preventing Youth from Getting Involved in Agriculture	Percentage (%)
Lack of capital	88.1
Bureaucracy in various matters related to agriculture	67.3
Afraid to take risk and fear of trying	67.0
Lack of knowledge in terms of technical and the management of agriculture	66.6
Lack of exposure in agriculture	64.1
Lack of interest and willingness	61.9
Unfavourable view and image on farmers as careers	58.6
Insufficient infrastructure and facilities in the rurals areas to attract more youth to stay in the village	57.4
Unstable income returns and profits	56.9
Lack of strong support from the family and the community	50.5
Lack of source of and difficulties in obtaining information on certain areas	49.8
Unclear and insufficient counselling by the agriculture officers and agencies	48.4
The current agriculture education program is not encouraging	40.3
Lack of agriculture education that should be done at preschool level	39.3
Fear of the public view and society acceptance	38.3

knowledge on agriculture. There should be a concerted and continuous effort between the government and the other agencies in taking necessary actions in order to form more positive outlook and support the development of the national agriculture.

Organizing expo and exhibition, campaigns, promotion and road-shows via print and electronic media, "Agriculture Showroom" and various activities must be held frequently to introduce agriculture to the youth and the public. Such organized programmes are able to attract the Malaysian youth to get to know agriculture closer and spark interest in getting involved in it.

A Solution to the Factors that Prevent Youth from Getting Involved in Agriculture Sector

As mentioned before, capital is the main factor that prevents youth's involvement in agriculture. If the government is more serious in assisting them with financial resource with less stringent requirements in getting loans, they may be more interested and willing to venture in such businesses. Other than that, the bureaucracy system must be reduced because it can lessen the interest of new young farmers to embark in agriculture. The involvement of agriculture officers in giving training and counselling is critically needed not just to give instructions but also to encourage and assist them particularly those who are lack of knowledge in agriculture. The government has to be more concern in providing basic facilities in the rural agricultural area. Such facilities must be provided at the collection site with complete infrastructure to attract more people to live in the rural areas where agriculture is developed.

Strong Agriculture Educational Approach and Preparing Suitable Programmes

The education and training programmes must be suitable and address the need of the youth community and the reality in the rural area as well as reflecting the effective education.

Norsida Man

TABLE 8 Level of Respondents' Knowledge on Agriculture Education Programme (n=1433)

Agriculture Education Programme	Unaware at all	Don't really know	Aware	Very Unaware
	%	%	%	%
Institute of Agriculture Programme	20.9	36.4	27.2	15.4
Agriculture College Programme under Ministry of Agriculture and Agro-based Industry	18.4	37.4	34.0	10.0
Agriculture Science Studies at Technical High Schools under Ministry of Education	14.7	28.1	40.2	17.0
Agriculture Science Studies at Technical and Vocational High Schools under Ministry of Education	15.3	30.0	38.8	15.9
Agricultural 4B Youth Movement Program	30.7	42.3	21.8	5.2
Youth Agricultural Entrepreneur Scheme Under Permanent Food Production Park Project (TKPM)	34.0	38.9	21.1	5.9
Income Increment Scheme Under Ministry of Agriculture and Agro-based Industry and FAMA	27.9	40.5	26.9	4.7
Agriculture Skill Courses under National Agriculture Training Council	26.2	39.1	27.2	7.5
Pioneering Entrepreneur Guidance Programs under FELDA Colleges	28.1	40.8	25.5	5.7
Entrepreneur Guidance Programs under National Institute of Entrepreneurship organized by Ministry of Entrepreneur and Cooperative Development (MECD)	29.7	44.5	22.2	3.6
Agriculture Entrepreneur Incubator Program organized by Department of Agriculture, Ministry of Agriculture and Agro-based Industry	27.5	32.5	27.4	12.6

In short, such education programme must be suitable and portray the agro-ecological and socio-cultural aspects of an area.

The Ministry of Agriculture and Agrobased Industry must work hand in hand with the Ministry of Education in educating the students on agriculture at school level. A good learning module on agriculture and being sensitive to the current situation must be considered. Such curriculum must be based on the needs of both male and female youth based on their age and level of education. Other than the agriculture education programme, an education programme that assists and exposes the youth to the modern economy and other various development programmes must be implemented to enable them to be more empowered and proactive in every aspect of the national development.

In order to prepare young farmers who can spearhead the progress of the nation as the main pillar of human capital who are successful in the agriculture sector, the youth today must also be physically and mentally developed. An education programme related to the enrichment of religious, moral, ethics, culture and identity of the nation must be integrated in the agriculture education programme.

Agencies Actions that Get Involved in Youth Agriculture Education

Effective agriculture education actually depends on how far and serious the commitment given by every party. Multiple efforts are needed to ensure the effectiveness of an education programme. In this case, collaboration between the state government and the government centres is needed in developing the agriculture education for youth at state level.

Local development agencies must be involved in planning activities related to agriculture education and the organization involved must have a technical advantage to provide and implement all programmes that have been planned. Such institutions must also be able to access and adapt to the need or interest of the youth residing in the rural areas.

The government must always sustain any opportunities and forms of incentives that can assist the development of the youth particularly in the rural areas by allocating a special budget for them. In order to address the issue of declining involvement of youth in the agriculture, various programmes involving them in this sector have to be planned and several actions need to be taken. These actions include:

1) To Establish the Programme that Produces Skilled Successor Farmer

The agencies need to create the extension programme that is relevant to youth, by organising courses and training, giving them professional status as skilled farmers and supporting the young farmers through various assistances. This programme will help to foster and empower the successful future generation of farmers.

2) To Organize Course and Training Programme

There are various courses that have values to attract the youth on agriculture that have to be organized particularly for them. The courses should focus on the latest production of technology know-how and farm management. Other than that, such courses must stress on how to encourage them to work in group. The most important thing is that these courses address every level of the youth self development.

3) To establish Practical Programme (Internship) for Secondary and High School Students

This can be done by choosing a target group, the secondary and high school students who are really interested to participate in agriculture in the future. Such activities are able to increase their understanding on agriculture and to improve their interest to be successor farmers in agriculture through practical programmes during school holidays.

4) To Conduct Classes on Farm Management and Life Skills as Farmers

For those who are currently involved in agriculture, it is vital to expand their talents in several aspects of management of agriculture and life skills as farmers. These youth are able to enrol in classes conducted phase by phase by the agricultural agencies and others on a part time basis.

5) To Establish Informal Trainer for Agriculture

The agricultural agencies are able to utilise the young farmers who have been involved in agriculture as an informal trainer as a way to obtain and give information to their peers as well as others for various purposes.

6) To Provide Support through the I-Turner Concept

This is a programme planned for the youth who have been working in other sectors (a concept known as *I-Turner*) to join agriculture but lack of information, training, capital and expertise. Such support can encourage more youth to work in the agricultural sector.

7) To Provide Further Training for the Agriculture Officers

To educate the youth farmers, agencies involved must provide trainers among the extension officers. However, courses and training must be conducted in order to increase the capability of these officers. This is to ensure that they are aware of the current knowledge and technology in agriculture, to know farm management well, to obtain knowledge on farming practices and others. The results of this research can provide suggestions to the policy makers particularly the agencies that are involved in developing and encouraging more youth to join in agricultural sector. Suitable methods have been proposed to be utilized by the agencies involved as programmes and actions in their agenda to educate young farmers as the successor of the future agricultural generation.

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