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"Tapping into the Potential of Science and Innovation in Agri-food Chains- Creating Employment & Wealth for Youths in the Caribbean"

"Getting unemployment down requires two things. It requires businesses to offer more jobs, and it requires the unemployed to have the needed skills to enable them to take the new jobs as they open."[1] The Australian Chamber of Commerce puts the solution to unemployment simply and even though we know these answers are correct we also know that they are not as simple to achieve.

One of the main obstacles facing youths in the quest for employment and wealth creation in Agri- food Chains is themselves. Yes, themselves. In an article posted by the Nassau Guardian on February 03, 2003 a reporter wrote, "The Bahamas and the Caribbean will have to find more creative ways than sea, sand and sun to attract tourists, as tourism recovery is threatened by a Middle East War"[2]. This statement has been going through minds years in and years out, finally though, the need to look at other avenues in depth has arisen. Many youths have a fixed mind set in terms of intensive labor jobs. I remember being in a career meeting for my classmates and myself who were about to graduate. When students were asked what they wanted to study or what field they intended to work in upon graduation, many of the students replied that they either wanted to become doctors, lawyers, engineers, physicists, chemists or teachers but not one person said that they wanted to become a fisherman or a farmer. Many youths think that becoming an agriculturalist is a lowly job and is filled with hard work with no benefits

How do we overcome this problem? Advertise. The government can set up posters and commercials showing that they are willing to invest in the Agricultural Sector if the youth are willing to likewise invest in Agriculture. These advertisements can also show what farming has to offer such as bridging the gap in unemployment, the fertile soils of the Caribbean; it's warm, humid weather and marked seasons which make it perfect for farming and the benefits of farming as opposed to white collar jobs. Also support more essay competitions encouraging youths to research, analyze and learn more about the Argi-Industry.

Also, ***educate***. To overcome the ignorance involved with youths not going into the Argi-industry, start with the new generation. From kindergarten and throughout high school make not only Agriculture but the study of other natural industries a requirement. Along with Mechanics, Woodwork, Technical drawing, include Farming, taking care of livestock and Fishing courses. Make Farming, raising livestock and Fishing a mandatory course to take for one semester in order for a student to graduate. Training should be

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[1] http://www.acci.asn.au/text_files/issues_papers/Employ_Educ/ee09.pdf

[2] http://archive.nassauguardian.net/archive_detail.php?archiveFile=./pubfiles/nas/archive/2003/February/03/Business/13737.xml&start=0&numPer=20&keyword=lost+in+tourist+dollars&sectionSearch=Business&begindate=6%2F7%2F2002&enddate=6%2F10%2F2006&authorSearch=&IncludeStories=1&pubsection=&page=&IncludePages=&IncludeImages=1&mode=allwords&archive_pubname=Nassau+Guardian%0A%09%09%09

established for people in livestock on how to take care of the animals in terms of storage and feeding. Also, mentorship programs can be started in the Argi-Industry where a student can get first hand experience. They can also give their advice and output on what a farmer is currently doing and this passage of information can help greatly in the Argi-Industry. This educates the youth about the many opportunities there are in the Arig-food Chains industry such as the study of genetics and the role they play in our diet and individual reactions to what we eat, for example "What causes diabetes?" or how to boost the benefits if certain foods.[3] Other employment areas include Food, Health and Policy regulation such as access to healthy foods and correct and approved information about food items and example is the nutrition labeling on food.

Another obstacle facing the youth is the lack of adequate handling and marketing facilities located in some Caribbean countries. An example of this can be seen in Nassau Bahamas where many improvements need to be made in terms of the "Exchange" where produce is sold such as processing plants, chill rooms and cold storage, enhancements to the building to attract more Bahamians and better transport to get the fruit to the market. Outer island farmers are unable to get their produce to the market in the city, Nassau, due to lack of proper infrastructure. Many roads are unpaved and therefore the passage of produce to mailboats that will transport it to the city is difficult where many times fruit and vegetables are bruised before they even leave the island.

An additional problem facing youths in the quest for wealth creation is the realization of the tourism dollar leakage in the Caribbean. As stated in The Tribune on Thursday June 08, 2006, "While the Bahamas saw 85 per cent of its tourism earnings spent outside the nation….Antigua & Barbuda, the percentage was 56 per cent, for Barbados, 66 per cent; Bermuda, 59 per cent, Trinidad and Tobago; just 22 per cent, Jamaica, 50 per cent; and Turks & Caicos, 69 per cent." The solution to the problem, "If you come….and stay in luxury, five-star accommodation, rather a high proportion of what you spend will leave the economy, because luxury hotels spend a lot on imports-state- of –the-art audio systems and ***food***[4]". The major word in that statement is food; therefore the youth need to do their part for the economy by embarking in the Argi-Industry and the government does theirs by developing strong partnerships between small local industries and hotels. This is one way to show how everything is interrelated and the importance of the Argi-Industry in the Caribbean.

How does science, technology ad innovation help to overcome the obstacles facing youth in the Agri-Industry? Since 1996 scientist have been developing biotechnology foods. You may be eating biotechnology foods now and do not even know it. For example, many processed foods contain biotechnology foods such as chips, pizza, salad dressing, ice cream, cookies, all made from soybeans, canola and corn that have been genetically engineered. The question you many ask now is, "What are the benefits to biotechnology foods?" Well, it produces higher yields of crops, which for the developing world is a good thing where there are poor farming conditions a low-technical practices. It also allows farmers to use less pesticides as in corn where a built in Bt insecticide has lowered the amount of pesticide spraying and also contributes in soil conservation. Other Caribbean type plants that have been genetically engineered include squash, bananas, sweet potatoes and papaya. Also, animals that have been fed with the

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[3] http://www.agrifoodforum.com/english/AIF2005-themes.pdf

[4]Hartnell, Neil. *Bahamas has highest tourism dollar 'leakage' in Caribbean* Article 8 Jun. 2006: B1

modified food contain more nutrients such as proteins and Vitamin A. Or even more amazingly cows and sheep have had genes inserted into them by scientist which have allowed them to produce milk and other products with pharmaceuticals in them. Well, are they safe? Yes, they are. These bioengineered products go through more testing than regular foods and therefore risks are minimized. Youth should be encouraged to study in this area due to the many advantages involved in it such as resistance to pests and disease, increase in crop yields and providing ways to grow crops in drought conditions, soils that have high amounts of salts, aluminum or iron and depleted soils. Other research includes research into new plant breeds, new growing techniques, new and safer growing fertilizers and innovation in terms of technologically advanced equipment.

Many organizations are engaged in harnessing the powers of Science, Technology and Innovation in the agri-food chains such as University of The West Indies, the St. Augustine Campus in Trinidad which was founded in 1921 and provides a creative and open environment for students to learn about Agriculture and how to get ahead in the field. Another organization is the College of the Bahamas where students have the opportunity to go into the field and either take care of livestock or plants. Bahamians who know about the facility love to go there due to the lack of steroids used on the animals and how they can see, "the chicken being killed right in front of me". Also involved in the Caribbean is NIHERST whose "initiative is to be the advocate for a society that recognizes and embraces the fact that Science & Technology impacts upon and is a part of their everyday existence, and is empowered by this knowledge to effect improvements in their quality of life."[5] It can be seen as a catalyst for many future developments in the Caribbean, hosting competitions, workshops, forums, interactive exhibits and many more exciting programs that reach out to the youth. Also thirty scholarships have been made out to students to attend the Simon Bolivar United World College of Agriculture in Venezuela allowing students to study in farm administration and pass their knowledge onto others.

As the first paragraph says, we need to create jobs and then enable the youth with the information to undertake that responsibility. In a new millennium where everything is growing so rapidly and old traditions are being improved to better our way of living, we must also move forward and use our resources efficiently and safely. Knowledge is the key to success because whether there is drought, flooding or hurricanes it can never leave us but only enable us to build up and become stronger than before. The youth is the way to the future. Knowledge and youth are two powerful things that equal either disaster or accomplishment based on the training that goes with that accumulation of knowledge to form wisdom. Let us train our youth to move ahead with wisdom, knowledge and power and create a better future for them!

[5] http://www.niherst.gov.tt/scipop/nsc/

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