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*World Agricultural Forum 2017*

## **Jobs in Agri-Food Industry: Silver Lining for Youth**

*By Jose Montesclaros*

### **Synopsis**

*The agri-food industry offers a bright future for the youth, in Singapore and abroad, amid discouraging youth employment prospects globally.*

### **Commentary**

IN 2016, Singapore saw the smallest annual increase in its employment statistics since 2003, according to the Ministry of Manpower. Moreover, only 80% of university graduates surveyed in 2016 from the National University of Singapore, Nanyang Technological University, and Singapore Management University, were able to find jobs within six months. In fact, those finishing from polytechnics had better outcomes, with 91% of fresh graduates and 95% of post-national service graduates employed within six months. This implies the non-intuitive outcome that there is less demand for individuals with more years of education.

These trends paint a discouraging picture of the future, a sentiment which can be seen among some youth in social media. This is also shown in a rough and perhaps even anecdotal survey by The Straits Times where nine out of 15 students interviewed in 2014 shared concerns they may not be able to own a car and a house in the future, what are seen by some as “basic goods” today.

### **Wider Trends: Youth Unemployment in Perspective**

This situation is not unique to Singapore, with graduates from European countries

flocking to Asia with hopes of better opportunities. Add to this the high expectations and perceptions of self entitlement that today's millennials express, and it is no wonder that there is greater disappointment. In the extremes, in fact, suicide is increasing at the greatest rate in youths, globally.

However, depression need not be the order of the day.

A look at the global environment shows that today's situation is not a result of the youth's (graduates, and even young professionals) inability to succeed in an increasingly competitive environment. Rather, it is a natural result of certain imbalances resulting from several transitions happening globally.

To begin with people are working longer and retiring later, leaving fewer job vacancies amid the large demographic of people finishing school and entering the world's labour force. In cities, urban populations are also growing at a faster rate, through births and migration, than jobs being created.

Lastly, we are facing the Fourth Industrial Revolution -- after steam, electricity and electronics/information technology -- which the World Economic Forum describes as greater digitisation and integration of technology into other activities such as healthcare and transportation. This offers greater opportunities for increasing productivity, while at the same time, opening us up to the risk of job displacement too.

The economic slump is also to blame. An industry or sector of the economy cannot simply create new jobs if demand for products in that industry is not growing. In luxury goods, the consultancy Bain and Co reports that global demand actually fell from US\$ 251 billion in 2015 to an estimated \$249 billion in 2016. Slowing or negative growth in demand for these commodities means equally slow/negative growth in demand for workers in related industries. This is understandable, with more individuals saving than splurging on luxury goods.

### **Silver Lining in Agri-Food?**

These are just some of the reasons for today's situation, and all these need to be recognised so that the youth will not blame themselves for this situation, and so that integrated approaches to cope can be identified.

Contrary to trends in luxury goods, a silver lining can be seen in the prospects for more jobs in the agri-food industry, as shared by speakers at the recent Youth Engagement Event held alongside the World Agricultural Forum in Singapore, 6-7 July 2017.

Firstly, there is growing demand for food on the back of population growth especially in developing countries, with projections of demand growth of 58% to 98% by 2050 according to the Food and Agriculture Organisation of the United Nations (UN FAO). To meet this growing demand, producers will need to cope with the challenge of climate change, which threatens to reduce yields in agricultural production.

Scientists will be needed to develop crops of the future which will be able to

withstand droughts and flooding, with additional potential of fortifying food with more of needed vitamins and nutrients.

### **Industrial Revolution 4.0**

On the back of the Fourth Industrial Revolution, more work will also be needed in developing and prototyping applications of digital technologies to agriculture, from drones that can monitor fields and spray the right quantity of chemicals, to crop analytics that help farmers to calibrate their use of inputs to maximise profits, and also compare yields across areas. More young entrepreneurs today, in Singapore and abroad, are venturing into startups that develop these products to support food production, as well as in applying these in modern, high-tech urban farms.

At the same time, consumers are demanding higher quality food products, so that more jobs are needed in the field of safety testing, sterilisation and quality assurance. One of the emerging food safety threats is resistance of diseases to antibiotics meant to address them.

These can have high social and welfare costs, estimated at up to \$124.5 trillion from world GDP by 2050, according to the RAND Corporation. No small part of this will be in food, as two-thirds of the estimated future growth of applications of antibiotics is expected to occur in animals like livestock.

Lastly, as more individuals are living in cities, companies are realising economic benefits of shorter supply chains whenever food is produced domestically, as there are less middlemen to pay off to transport commodities. This also allows them to reduce the food miles, or the ecological footprint caused by transport of food from exporting to importing countries, or from far-off rural areas to cities. Urban planners, consultants, and supply chain specialists with exposure to food and agriculture will likely be in greater need in helping cities and companies adjust to the new normal of a world of cities.

### **Future Directions**

Looking forward, more support can be given to developing future professions linked to agriculture, as highlighted above. While not a panacea that can address job loss in other sectors, the agri-food industry can nonetheless contribute more jobs for the youth, while at the same time helping secure food through new discoveries and technologies.

In Singapore, this can be in the form of more targeted training curricula, and encouraging more internships, in agri-food. Singapore's imperative of becoming a fully fledged digital nation may also be complemented by efforts at identifying agricultural applications for tech knowledge, in high tech farming as well as food safety, among others.

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