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จุฬาลงกรณ์มหาวิทยาลัย  
CHULALONGKORN UNIVERSITY

Being “agricool”:  
Supporting ASEAN youth and tertiary  
student futures for sustainable agrifood  
system learning and livelihoods to meet  
the Sustainable Development Goals

Policy Brief #2

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**Background:** This policy brief is one in a series led by Chulalongkorn University with support from the Office of the Higher Education Commission, Ministry of Education, Thailand, in partnership with FAO. The series was initiated to support the Association of Southeast Asian Nations (ASEAN) Work Plan on Education, 2016–2020 implementation while Thailand was Chair of ASEAN in 2019 under the theme: “Advancing Partnership for Sustainability.” The briefs in this series offer critical interdisciplinary perspectives on agrifood systems from social and sustainability sciences.

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## Acronyms

FAO	Food and Agriculture Organization of the United Nations
HEIs	higher education institutions
IFAD	International Fund for Agricultural Development
ILO	International Labor Organization
SEAMEO	Southeast Asia Ministers of Education Organization
SEARCA	SEAMEO Regional Center for Graduate Study and Research in Agriculture
YPARD	Young Professionals for Agricultural Development

**An aging farming population and a lack of interest on the part of youth to take on agricultural activities.** As highlighted by a study carried out by HelpAge in 2014, there is evidence that farm populations and the subgroup of agricultural holders in Southeast Asia are ageing, with 28.5 percent of farmholders over the age of 55. Another recent study (Rigg *et al.*, 2019) points out that in 8 out of 10 selected Asian countries,<sup>1</sup> the average age of farmers is 50 or older. This issue of aging farmers is exacerbated by the fact that there are not enough youth replacing them because many migrate in search of better lives, employment and educational opportunities. Young people no longer aspire to be farmers because such work is typically associated with limited opportunities, little prestige, lack of independence and low returns. The decline of the share of young people working in agriculture is also explained by the increasing difficulties they face, such as insecure farming livelihoods, land resources, decreasing environmental services, all of which limit the opportunities for young people to develop farming activities (Mortensen, 2018). Last, but not least, a study led by the Asian Farmer Association pointed out that “lack of curriculum on land, agrarian reform and agriculture was also discouraging young farmers to pursue an agricultural career” (Basnet, 2015, p. 5). Investing in young people living in rural areas through the development of attractive “agricool” curriculum and learning is therefore a key to enhancing sustainable agricultural productivity, boosting rural economies and ensuring food security. This should be completed by addressing structural barriers in agriculture faced by youth.

**Agriculture is central to Southeast Asian livelihoods but is unsustainable.** Agriculture has always been important to livelihoods in Southeast Asia. In 2017, national employment rates among significant agriculture economies and societies ranged from 11 percent to nearly 50 percent.

Cambodia	Indonesia	Malaysia	Myanmar	Philippines	Thailand	Timor-Leste	Viet Nam
NA	29.7 %	11.3%	48.9%	25.4%	31.5%	40.5%	40.2%

(Source: ADB, 2018)

Healthy ecosystem services and rich biodiversity have underpinned much of the sustained growth of the region over the past decade. The green revolution led to the improvement in agriculture productivity and growth, thereby contributing to food and nutrition security, stabilization of the inflation, increased export revenues and the creation of more jobs in rural and ancillary industries. It came, however, at a high cost to the environment, with many of the region’s forests, mountains, wetlands, and coastal ecosystems now degraded, and important biodiversity resources facing serious threats (IPBES, 2018). Moreover, associated conventional, agrochemical-intensive, monocropping agriculture practices have led to a degradation of farming incomes and working conditions. The dominant agrifood system is neither clean nor green, nor does it adequately support decent jobs, food security, or nutritional health. Further, it has not served rural youth and small farm families well, who are still among the poorest and most vulnerable. Thus, according to the International Fund for Agricultural Development Rural Poverty Report in 2011, 53 percent of the total population in SEA lived with less than USD 2.00 a day, with the bulk of the poor located in the rural areas. Southeast Asia’s rural population accounts for over 50 percent of the total population in the region, and the incidence of poverty is higher in rural areas (at 62 percent) than in urban areas. Recent data suggest that around 64.7 million people in Southeast Asia (9.8 percent

<sup>1</sup> Viet Nam (37), Cambodia (39), China (50), Thailand (51), Indonesia (52), Philippines (57), Malaysia (60), Taiwan Province of China (62), Korea (65), Japan (70)

of the population) were undernourished or food insecure in 2019, with farmers and rural communities being the most vulnerable. Moreover, projections suggest that the region, despite some modest progress since 2015, is off track to meet the United Nations-agreed global Sustainable Development Goals (SDGs) for zero hunger by 2030, with the COVID-19 pandemic creating further vulnerabilities and uncertainties (FAO *et al.*, 2021).

**A situation further degraded by the impacts of the pandemic and calling for a transition towards sustainable and agro-ecology-based food systems.** Globally, the current COVID-19 pandemic is affecting the political, economic, social, environmental and food sectors. The effects of the pandemic on agriculture have been exacerbated by the way in which the current industrial farming system is set up (Altieri and Nicholls, 2020). The intensification of agricultural production has been accompanied by unsustainable exploitation of natural resources, resulting in the degradation of ecosystems, rural society and knowledge. This degradation of the natural resource base, combined with the increasing impacts of climate change and global uncertainties, exposes communities to more hazards and losses, and reduces their resilience in the future. Moreover, large-scale specialized livestock and feed production, which focus on the production of bulk commodities and rely on the use of agrochemicals, have been driving natural habitat loss and have pushed the agricultural frontier into wilder and less-arable lands. This has the potential to create conditions that favour the circulation and mixing of viruses, which can then be spread to humans (FAO, 2021). This multidimensional threat requires an adequate response to protect the most vulnerable and marginalized groups, not only in cities but also in rural areas. In line with the 2030 Agenda for Sustainable Development, this situation pushes for urgent transition towards sustainable food systems. Agroecological approaches provide an immediate solution to the current challenges, both by protecting the environment and producers, and by enabling the local production of healthy and sustainable food for all. It offers local solutions and empowers local economies and markets by keeping farmers in the field with improved livelihoods and a better quality of life (IPES-Food, 2020).

**Youth futures, tertiary agrifood system education and SDGs.** The United Nations defines youth as those people aged 15–24 years, although most countries in Southeast Asia have a wider definition of youth, being as old as 35 years. However, to define youth, it is also worth mentioning other features beyond age, such as young people’s positioning in cross-cutting (“intersecting”) relationships and hierarchies of generation, gender, class, culture, ethnicity, and different forms of knowledge and learning. These are important elements to consider in order to better target youth. In 2017, it was estimated that ASEAN countries were comprise of 213 million youth (aged 15–34 years), thus constituting the largest-ever cohort of ASEAN youth (ASEAN, 2017). And, for most countries in the Asia Pacific region, a majority of youth (aged 15–24) continue to reside in rural areas. About one-fifth of youth in Asia are not in education, employment or training, and more than 86 percent of employed youth in Asia and the Pacific are in the informal sector, which is greater than the proportion of informal employment among adult workers (67.1 percent) (Briones, 2019). The region’s long-term development in agriculture, food production and rural economy depends crucially on today’s youth outcomes. Thus, addressing the challenges of future generations of young people is a cross-cutting concern for all SDGs, but especially 4, 8 and 13.

<p>SDG 4 – “Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all”</p>	<ul style="list-style-type: none"> <li>➤ Target 4.3 commits to “quality tertiary education for all”.</li> <li>➤ Target 4.7 mandates “universal education for sustainable development knowledge and skills”</li> <li>➤ Target 4.4 aims to “By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship”.</li> </ul>
<p>SDG 8 – “Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all”</p>	<ul style="list-style-type: none"> <li>➤ Target 8.b commits to “By 2020, develop and operationalize a global strategy for youth employment”.</li> </ul>
<p>SDG 13 – “Take urgent action to combat climate change and its impacts”</p>	<ul style="list-style-type: none"> <li>➤ Target 13.b aims at promoting “mechanisms for raising capacity for effective climate change-related planning and management..”, including youth.</li> </ul>

The United Nations Decade of Family Farming (UNDFFF) 2019–2028, Global Action Plan (under “Pillar 2”) further stressed that by “empowering and offering opportunities to rural youth, countries would simultaneously promote education (SDG 4), decent employment and inclusive economic growth (SDG 8), [as well as addressing] poverty reduction (SDG 1)” while helping reduce outmigration, drivers of conflicts (SDG 16) and more. Support to youth in the framework of the UNDFFF is encouraged, considering their relation to older generations. This idea is behind the term “generational sustainability” (FAO and IFAD, 2019, p, 31).

**Youth unemployment high as interest in agriculture jobs and learning declines.** Young people are increasingly concerned about the future of the planet and have a vested interest in environmental issues (e.g. sustainability, climate change, green jobs). However, this has not translated into an interest in the agricultural sector. Youth unemployment rates vary among countries, but in the Asia-Pacific region they have tended to be three to five times higher than average in the general population (UN ESCAP, 2012). For Southeast Asia, youth unemployment projections were 11.7 percent in 2016, increasing to 12.2 percent in 2018 – or 7.3 million people (ILO, 2017). Yet studies suggest that “the agro-food economy holds considerable job-creation potential for young people...” if it focused on “more vibrant, sustainable and inclusive domestic food systems articulated in local value chains” (OECD Development Centre, 2018, p. 5). At the same time, agriculture remains under continuous threat from natural resource degradation, decreasing agrobiodiversity, and climate change, with youth interest in agriculture declining as many migrate to cities. The sector, then risks losing out on youth energy and innovation (IFAD, 2018a; Van der Geest, 2010). Even if youth want to farm, they encounter obstacles accessing land, credit and new technologies (United Nations, 2015). Moreover, with some exceptions, most Southeast Asian universities have reduced student enrollment in agriculture degree programmes (CUSAR and SEARCA, 2018). Reasons for this are multifaceted and data vary among countries. In addition to the structural barriers mentioned above, a study conducted by the Asian Farmers Association suggested that, among other factors, a “lack of curriculum on land, agrarian reform

and agriculture...discourag[es] young farmers to pursue an agricultural career” (Basnet, 2015, p.5).

**Family farming and sustainable rural futures depend on education for next generation ASEAN youth.** In Asian and Pacific countries, it is estimated that an average of 36 percent of the 15–24-year-olds are “digitally native”, with five or more years of online experience (Briones, 2019). Thus, despite youth participation in agriculture declining, another counter-trend in Southeast Asia is the young, digitally adept, “smart farmer” returning to the land and inspiring others using innovative new technologies for healthy organic production, clean environments and improved livelihoods in rural communities. Universities can help by attracting and training young smart farmers (Tapanapunnitikul and Prasunpangsri, 2014). Smart climate-friendly agriculture could become one attractive, viable, decent youth career choice. The United Nations Decade of Family Farming Action Plan has made support for rural youth a priority. It stresses that empowering youth with adequate knowledge and skills is essential to “distinct, youth-specific training and education programmes which can significantly contribute to the generational sustainability of family farming” (FAO and IFAD, 2019). Another recommendation from a 2017 ASEAN Technical Meeting and Policy Dialogue stressed the importance of better supporting more attractive “agricool” learning and jobs for youth in future ASEAN tertiary programmes and partnerships (CUSAR and SEARCA, 2018).

**Rural youth, educational challenges and tertiary opportunities.** Rural communities, farmers and youth tend to have higher illiteracy rates, lower education levels and more limited access to information or participation in national policy processes and local decision-making (IFAD, n.d). At the same time, higher education institutions (HEIs) have not adequately reformed teaching, curricula, research, learning or extension services to address smallholder farm communities and rural youth (Acker and Gasperini, 2008; Atchoarena and Holmes, 2004). It is worth mentioning that often, formal and non-formal knowledge-sharing and education programmes provided by and within rural organizations are filling the gap of non-existent education programmes. One FAO study suggested that a “lack of learning opportunities is directly related to rural poverty” with the need for education and training strategies to be better “integrated within sustainable rural development strategies, through plans of action that are multi-sectoral and interdisciplinary” (De Muro and Burchi, 2007, p. 6). IFAD has also underscored that “deficiencies in rural education, as well as gaps between rural and urban educational levels [...] include low enrolment rates, lack of qualified teachers, irrelevant courses, poor facilities and unaffordable school fees” (IFAD, 2011, p. 6). Poorly served rural youth are also neglected by urban academia. HEIs with supportive government policies and budgets, should invest more in capacity development and training, including critical thinking, problem-solving and digital skills, which are needed for successful youth employment and entrepreneurship (IFAD, 2018). Thus, HEI rural investments could complement broader or more traditional academic degree programmes to help youth from farming families to remain in agriculture and help sustain their local communities. This could contribute significantly to their futures while also meeting various SDGs. The tertiary sector needs to study these issues better along with academic reforms to improve rural youth and student opportunities.

**Youth identified challenges implicating tertiary institutions.** FAO, IFAD and the Centre technique de coopération agricole et rurale (CTA) published a review of six broad challenges identified by some youth: 1) access to knowledge, information and education; 2) access to land;

3) access to financial services; 4) access to green jobs; 5) access to markets; and 6) engagement in policy dialogue (FAO, 2014). That study noted higher education deficiencies as a particular concern, with low access to tertiary agricultural education by rural youth. Elsewhere, FAO (2015) identified “additional constraints and obstacles that discourage or prevent the entry into agriculture, and practice of agriculture, even by those youth who would like to earn their livelihoods in the sector,” including:

- a lack of knowledge, information and education, and inadequate extension services, particularly related to marketing;
- inadequate technical knowledge, particularly about climate change adaptation; and
- untapped potential for green jobs creation for youth (FAO, 2015).

Youth organizations and constituents have also conducted their own studies, reinforcing and elaborating on further similar points, concluding that youth are often ignored and undervalued when developing agricultural sector priorities, including new curricula that could better serve graduates with competencies, skills and knowledge more attuned to workplace needs and viable careers (Percy-Smith and Akkermans, 2012). Among the main reasons for why youth do not want to engage in agriculture, a study conducted by the Asian Farmer Association also noted: a) farmers’ low identity and self-image; b) farming is not a profitable job; c) there is insecure land ownership and increasing land prices; d) a lack of rural infrastructure; e) a lack of supportive government policies and programmes for family farmers; f) a lack of curriculum on land, agrarian reform and agriculture; and a lack of organizations for young farmers (Basnet, 2015).

**Collaborative research with and for youth on agrifood system sustainability needed.** More multidisciplinary academic and policy research as well as evidence based and horizontal research is needed to better understand drivers of, features of (and alternatives to) rural youth migration and mobility, learning and career choice within and across Southeast Asia. Improved understanding is needed for how education of different types contribute to either sustainability or rural decline, and what knowledge, skills and training are needed to address gaps for youth and tertiary students to choose sustainable agriculture careers. Governments and HEIs must provide more substantive incentives, and financing with academic and extension programmes to support skills development, knowledge and technical training for decent green jobs, entrepreneurship for viable small agrifood businesses and career opportunities. Governments, HEIs and donors should offer graduate programmes and scholarships for thesis studies on sustainable agriculture and food systems with rural practicum and internship placements. Youth can play an important role in global agriculture in local and rural communities to find solutions for pressing climate change challenges (IFAD, 2018a). Locally specific knowledge and skills are needed for adaptation and mitigation strategies while youth especially, with adequate education support and use of digital technologies, can strengthen climate resilience in local communities while securing more sustainable livelihoods, on and off-farm, for themselves and their families (IFAD, 2018b). International agencies, academia and donors should work more closely with the International Association of Students in Agricultural and Related Sciences, Young Professionals for Agricultural Development (YPARD), and other key youth stakeholders in Southeast Asia to assess needs and build new academic and technical training and rural research programmes.

**Youth-student skills for knowledge-intensive agriculture and sustainable food systems in a climate resilient green economy.** The agrifood sector will require major restructuring for

transitioning to a green economy. Tertiary education and vocational training innovations and reforms must address new labour market needs, knowledge, technology gaps and technical skills for green jobs and sustainable agriculture (Strietska-Ilina *et al.*, 2011). Potentially millions of decent new youth jobs could be created in the coming decades, but skills development is a big challenge (FAO, 2014). Being tech savvy and increasingly concerned about environmental issues, youth can be in the forefront of acquiring and applying needed new green skills to increase long-term employment and community security (UNESCO and UNEP, 2016). There is a need, however, for well-documented examples (and best practices) of decent and green jobs generated by innovative and sustainable food systems for rural youth and tertiary students in Southeast Asia, because these are very much lacking. New studies and initiatives could be aligned with IFAD's recent Youth Action Plan supporting green economy and employment to include environmentally friendly food production, energy production from renewable sources, landscape maintenance and biodiversity protection, ecotourism and on-farm agroprocessing (IFAD, 2018). Similarly, they could contribute and support the new FAO Rural Youth Action Plan (2021–2025), especially Action Area 3 – Strengthening investments in human capital with emphasis on youth for the use of innovative, sustainable practices and technologies in food and agriculture (FAO, 2020) – and complement FAO's Scaling-up Agroecology Initiative to support millions of new decent jobs for rural youth (FAO, 2018). They can also reinforce the United Nations Youth Strategy (United Nations, 2018). Moreover, amid increasing worries about climate change, ecologically sustainable agriculture could be a doubly “cool” alternative for youth, with sustainable agriculture mitigating climate impacts (Bellarby *et. al.* 2008).

**Conclusions and summary recommendations.** HEIs, international agencies, regional organizations and governments in Southeast Asia must do more to assist youth and tertiary students by providing adequate programmes, curricula, research and extension services. It is critical to consider youth as an active partner and to fully include them in better documenting and evaluating youth and student issues while scaling-up best practices. Improved university services in rural communities are essential to catalyze a paradigm shift from industrial agriculture to diversified agro-ecological systems. Academia should take leadership with ASEAN member states, Southeast Asia Ministers of Education Organization (SEAMEO), youth and student organizations with donors on the following recommendations.

### ***Regional networking to better serve students-youth futures***

- 1. Establish** a new ASEAN-SEAMEO regional youth research, learning and employment innovation network for sustainable agriculture and agrifood systems to assist youth, tertiary students and graduates to access, advocate and work towards decent green agrifood jobs.

### ***Youth-student policy dialogue and strategic planning for SDGs***

- 2. Conduct** national and regional multi-stakeholder consultations with evidence-based policy dialogues among government officials and other stakeholders to understand the aspirations of rural youth, and assess youth and tertiary student needs and best practices. **Co-design** with youth proposals, projects and employment creation opportunities through sustainable agriculture and agrifood systems studies and careers linked to SDG monitoring, reporting and evaluation.

- 3. Draft** new Southeast Asia regional youth and tertiary student strategies and targets for sustainable agriculture and agrifood systems learning and research for SDGs integrated with the next ASEAN Work-Plan on Education, 2021 to 2025. Do this in collaboration with academia, SEAMEO-SEARCA, United Nations agencies, YPARD and IAAS with other student or youth groups.

#### *Youth-student research, data collection, knowledge-sharing and use*

- 4. Systematically collect and analyse data** on youth and student learning and career choices for sustainable agriculture and agrifood systems in partnership with governments, universities, colleges and other tertiary institutions across Southeast Asia. Aim **to better understand drivers** of rural youth migration and mobility (local, subregional and national), including, but not limited to, access and affordability for appropriate types of quality tertiary education in rural areas.
- 5. Support youth-student researchers** in sustainable agrifood system studies, including graduate theses and publications of peer-reviewed studies to help **build or strengthen a new generation** of sustainable agriculture professors, extension officers, multidisciplinary agrifood system scientists, and technical specialists for green jobs in universities, government, agriculture research organizations and the private sector.
- 6. Design and launch** an online, **open-source database** on learning, career, employment, scholarship and internship opportunities in sustainable agriculture and agrifood systems in Southeast Asia partnering with ASEAN, SEAMEO-SEARCA, tertiary institutions, governments and international agencies. It can also provide baseline and updateable information and matching services for both employers and prospective employees in public and private sectors.
- 7. Publish** a biennial **ASEAN assessment report** on sustainable agriculture and agrifood systems youth learning, career, and employment trends synthesizing data and multi-disciplinary evidence-based policy-relevant recommendations for AMS, academic leaders, and international agencies aligned with monitoring and evaluation of SDGs. Collaborate with ASEAN Secretariat; International Labour Organization, FAO, SEAMEO. SEARCA, UNESCAP, UNESCO, YPARD, ASEAN University Network and others to collect and analyse relevant data.

#### *Policy incentives, financing and investment for sustainable agrifood youth careers*

- 8. Promote** new **regional and national policies** among ASEAN governments and international agencies to better develop, prioritize and improve youth and student graduate access to **green agriculture jobs and decent work** as part of a new global strategy for youth employment committed to SDG 8 and aligned with the UN Youth Strategy, UN Decade of Family Farming 2019–2028 Global Action Plan, and FAO’s Scaling-up Agroecology Initiative (FAO, 2018). Policies targeting youth should simultaneously consider and deal with the needs of older generations.

9. Advocate for strengthened policy connections between sustainable agriculture and climate change, thereby linking this to youth aspirations to address climate change
10. **Establish** a special purpose ASEAN-SEAMEO Regional Trust Fund to **support youth-student programmes**, graduate scholarships, research, internships and apprenticeships for sustainable agriculture and agrifood systems across Southeast Asia. Collaborate with governments, the ASEAN Foundation, FAO and other international agencies, donors and the private sector.
11. **Support** adequate financial services and venture capital financing for **university graduates** and youth from other education programmes to incentivize innovative rural youth entrepreneurs. Establish cooperatives, develop sustainable agrifood tourism programmes and promote land tenure for local community food security and long-term sustainability of the agriculture sector.

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#### **Web resources for additional consultation**

- APYouthNet – ILO Asia-Pacific Knowledge Sharing Network on Youth Employment <https://apyouthnet.ilo.org/>
- IAAS – International Association of Students in Agricultural and Related Sciences [www.iaasworld.org/](http://www.iaasworld.org/)
- YPARD – Young Professionals for Agricultural Development [www.ypard.net](http://www.ypard.net)

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