



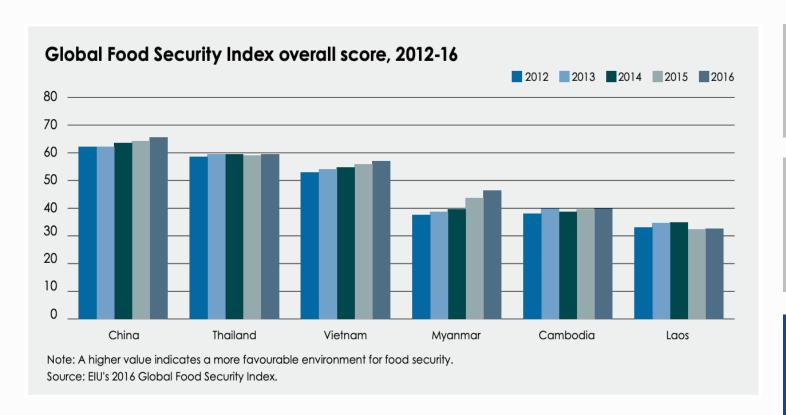
Impact of COVID-19 on the agri-food sector in the GMS

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Food Security in Greater Mekong Subregion (GMS)



Source: EIU Water Security: Lessons from the Mekong River Basin

Overall, the greatest food security risk in the basin is faced by Cambodia and Laos, where urbanisation is relatively low and the poverty level remains around 20%

By 2050, population growth is expected to increase food demand in the Greater Mekong Subregion by 25% or more, placing an even heavier burden on food systems that are already under stress.

Clearly, agriculture must not just aim to increase food production but also to improve the nutritional status of the population.

Agriculture in the Greater Mekong Subregion

Agriculture and Growth

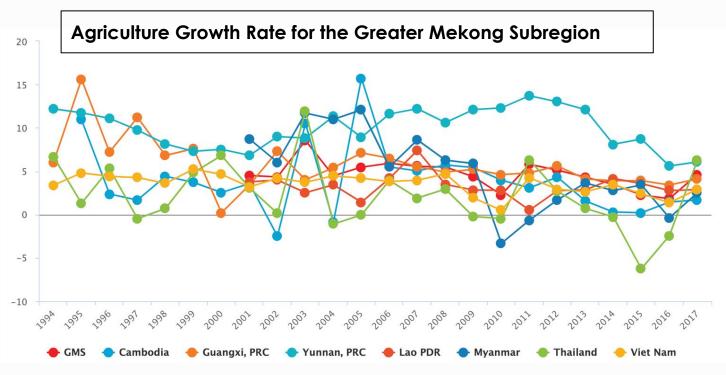
GDP Share of Agriculture and GDP per Capita in the GMS

	GDP share of A	Agriculture (%)	GDP per Capita (\$/year)		
Country	2000	2010	2000	2010	
Cambodia	37.90	36 .00	290.00	788.00	
PRC					
Guangxi	26.80	17.50	561.84	2,986.56	
Yunnan	20.70	12.81	560.00	2,327.00	
Lao PDR	48.54	30.81	303.47	1,003.71	
Myanmar	57.20	36.40	177.64	742.44	
Thailand	9.02	12.42	1,983.32	4,992.43	
Viet Nam	24.53	20.58	401.57	1,173.55	

GDP = gross domestic product, GMS = Greater Mekong Subregion, Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China.

Source: ADB. 2011. Key Indicators for Asia and the Pacific 2011. Manila; Council for the Development of Cambodia. 2011. Why Invest in Cambodia? Phnom Penh; Guangxi Bureau of Statistics. 2011. Guangxi Statistical Yearbook 2011. Beijing; International Monetary Fund. World Economic Outlook Database, September 2011. http://www.imf.org/external/pubs/ft/weo/2011/02/weodata/index.aspx; Government of Viet Nam, Ministry of Planning and Investment, General Statistics Office. 2011. Statistical Yearbook of Viet Nam 2010. Ha Noi; Yunnan Bureau of Statistics. Yunnan Statistical Yearbooks 2001 and 2010. Beijing.

Even with dynamic growth in manufacturing and services sectors in GMS countries, a large portion of the population still lives below the poverty line. This underlines the importance of enhancing and stabilizing growth in agriculture and agriculture as a major key to reducing poverty.



Source: Greater Mekong Subregion Statistical Database

Food Security in Greater Mekong Subregion (GMS)

ADB TA 9916-REG: Greater Mekong Sub-region (GMS) Sustainable Agriculture and Food Security Program(SAFSP)

Output 1:Climate-Friendly ,Inclusive, and Gender-Responsive Agri-Food Value Chains and Agribusinesses Strengthened

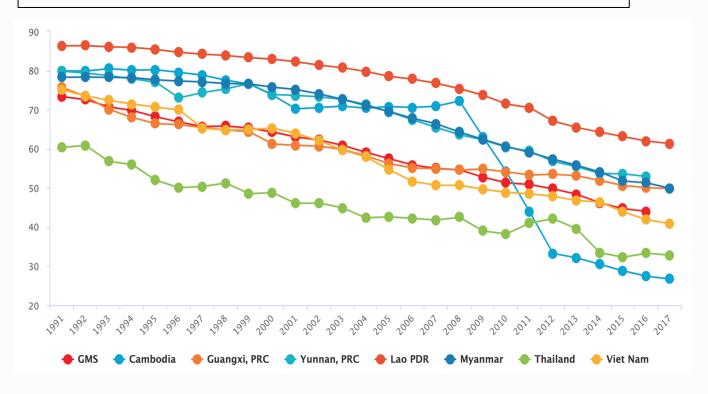
Output 2:Harmonized Crop and Livestock Safety and Quality Systems Adopted

Output 3: Climate-adaptive agriculture in the context of the water-food-energy nexus enhanced

Agriculture in the Greater Mekong Subregion

Agriculture and Employment

Employment in Agriculture (% of Total Employment)



Employment in Agriculture follows a decreasing trend across GMS countries.

Although total employment in agriculture (in millions) remains constant, the decreasing trend reflects lesser manpower availability for the agriculture sector.

Source: Greater Mekong Subregion Statistical Database

Impact of COVID-19 on the agricultural sector in GMS

Decrease in agricultural labor force

Decrease in agricultural labor force due to COVID-19-induced mobility restrictions could reduce agricultural production in Southeast Asia particularly low income countries

Table 1. Estimated reduction in the volume agricultural production due to decrease in agricultural labor force in Southeast Asia

		With COVID Scenario					
Country	Volume of Agricultural production* (in million tons)	Annual production per capita of ALP (tons/capita)**	Estimated Estimated ALF in 2020 due to COVID (in million)*** Estimated Agricultural production (in million tons)****		% Change in Volume of Agricultural Production due	Reduction in Volume of Agricultural Production (in million tons)	
	2018	2018	2020	2020	to Decrease in ALF	2020	
Vietnam	120.67	5.492	21.13	116.056	-3.82%	-4.614	
Cambodia	4.88	1.580	2.98	4.705	-3.63%	-0.177	
Indonesia	0.05	0.001	38.05	0.045	-3.28%	-0.002	
Philippines	99.98	9.379	10.34	97.011	-2.97%	-2.972	
Thailand	112.53	9.002	12.16	109.442	-2.74%	-3.084	
Malaysia	132.73	80.932	1.60	129.274	-2.60%	-3.454	
Myanmar	64.47	5.302	11.90	63.096	-2.13%	-1.373	
Timor-Leste	0.38	1.595	0.24	0.377	-1.40%	-0.005	
Singapore	0.18	6.163	0.0296	0.182	-1.40%	-0.003	
Brunei	0.16	15.793	0.01	0.156	-1.40%	-0.002	
Lao PDR	12.30	5.211	2.35	12.230	-0.56%	-0.069	
Southeast Asia	548.33	5.272	100.77	531.295	-3.11%	-17.034	

Notes: * Computed using crops and livestock production

^{**} Computed using the agricultural production in 2018 as base year

^{***} Computed assuming 1.4% reduction in agrilcultural labor force (Source: IFPRI; see Laborde and Vos 2020)

^{****} Estimated based on 2018 production and with 1.4% reduction in ALF

Impact of COVID-19 on the agricultural sector in GMS

Decrease in agricultural productivity and GDP

Overall, an estimated 1.4 percent drop in GDP (USD 3.76 billion) could be felt by the whole of SEA

Increase in poverty

- This decrease in GDP could mean more families in Southeast Asia being pushed below the poverty line
- Overall, poverty impacts in SEA could reach an additional 14.68 million families to live below the USD 1.90 a day threshold

Table 2. Estimated Reduction in GDP due to decrease in labor productivity in Southeast Asia

	With COVID Scenario					With COVID Scenario			
Country	Estimated ALF in 2020 due to COVID (in million)*	Estimated GDP (in billion USD)**	Difference in GDP (in billion USD)	% Change in GDP	Total Population (in millions)	Percent Increase in Poverty Ratio due to Labor Productivity Reduction***	Estimated Increase in the Number of Population Living Below USD 1.90 a day (in millions)		
	2020	2020	2020		2020				
Brunei	0.01	0.14	0.000	0.00%	0.43				
Cambodia	2.978	4.70	-0.066	-1.39%	16.50				
Indonesia	38.05	142.50	-2.022	-1.40%	266.10	2.07	5.51		
Lao PDR	2.347	3.03	-0.043	-1.39%	6.70	2.97	0.20		
Malaysia	1.597	27.90	-0.402	-1.42%	32.60				
Myanmar	11.901	17.16	-0.244	-1.40%	54.10	2.97	1.61		
Philippines	10.343	30.26	-0.430	-1.40%	108.80	2.97	3.23		
Singapore	0.0296	0.08	-0.001	-1.33%	5.71				
Thailand	12.157	38.06	-0.542	-1.40%	66.56	2.36	1.57		
Timor-Leste	0.237	0.41	-0.005	-1.25%	1.30	1.63	0.02		
Vietnam	21.13	34.51	-0.490	-1.40%	96.48	0.96	0.93		
Southeast Asia	100.769	264.60	-3.758	-1.40%	655.28	2.24	14.68		

Notes: * Computed assuming 1.4% reduction in agrilcultural labor force (Source: IFPRI); Labor Productivity (LP) = GDP/Worker (in thousand USD)

^{**} Computed using the estimated 2020 ALF and the computed labor productivity

^{***} Based on the estimates of IFPRI from 1.4% reduction in labor supply, except for Brunei, Cambodia, Malaysia, and Singapore, as data is not available



Achieving food security in GMS amid its growing populations has been a continuing challenge, made even more elusive by the onset of COVID-19 pandemic.

Reinforcing transformed agricultural food systems





Innovations for Transformational Change						
Policy Innovation	Providing inclusive social service and protection schemes to all sectors, especially the women and youth; innovative new sourcing of funding and financing of policies and programs; new policies on innovation, sustainability, and entrepreneurship					
Institutional Innovation	New arrangements for more participatory governance; academe-industry-government partnership or multi-stakeholder delivery of services; reconfiguring modalities of engagement with institutions from the macro level into multi-scalar governance, where governance is articulated clearly down to the local levels					
Social Innovation	Public and private sector players adopting new ideas, strategies and practices to better meet social needs; building of deeper relationships conducive to social and economic development					
Technological Innovation	Science and technology that enable social innovations to scale wider and faster; use of digital technology platforms for business models; IT-based education and collective learning					
Conceptual Innovation	Creation of new ways of working, thinking, deciding and operating at the governance level of partner organizations					

Reinforcing transformed agricultural agri-food systems







FUTURE

FARMER	Existing	New Farmer				
MINDSET	Old mindset: Farming is production.		New mindset: Farming is sustainable agribusiness.			
AGRO-ECOLOGICAL SYSTEM	Inputs > Production > Processing > Ma Linear Value Chain	outs > Production > Processing > Marketing Linear Value Chain Embr Disruptive				
PRODUCTS/ SERVICES	Resource-intensive, high-waste emission products and services; Human resource development	Bui Transforn Leade	and lo ational Agricult	oof products and services ith high-efficiency w ecological footprint; ure 4.0, Next Generation ARD leaders		
KEY PARTNERS	Heavily-dependent on government	Empowe Genera Agri Grad	Next acaden interco	ment acts as an enabler apported by strong ne-industry-government nnectivity collaboration		
MINDSET	Value Chain Thinking Product-centric Analog	Bridge o	vides	cosystem Thinking Market-centric Impact-centric gitally transformed		
NEEDS/ OPPORTUNITIES	Mindset change, leadership, accelerated transformation, new finance system, new innovative methods and operations, new markets and business models, transformed networks, new technologies Accelerated transformation through agricultural innovations in education and collective learning, research and thought leadership, and emerging innovations management and implementation					
SEARCA						

Reinforcing transformed agricultural agri-food systems

Impacts of Movement Restriction on Transportation COVID-19 With the announcement of nation-wide lockdown and enhanced community quarantine in the SEA per Supply countries, the movement across cities and provinces were reduced and restricted. Chain Node Supply **Farmer Processor** Distributor **Chain Nodes** Cargo Lane and Food Pass Stockpiling, Enhanced Plant Plant Program Accreditation **Production and Source** A program by the Department The Philippine government Diversification of Agriculture, Philippines issued a designated lane Singapore has prepared months' which seeks to increase where agriculture, fisheries worth of stockpiles at a national national agri-fishery output inputs and food products are level incase a disruption in through intensified use of transported through all forms supplies from Malaysia, In quality seeds, appropriate of conveyance across all addition, the country also plans inputs, modern technologies to mode of deliveries. Food to diversify their source of goods increase levels of productivity passes accreditation is free to and enhance local production. across all commodities. facilitate access to cargo lanes. **Bulk Buying of Produce from** Virtual Extension Services **Provision of Farm Inputs** Financial assistance were As the farmgate prices of Cambodia facilitates extension provided for the Thai farmers. some commodities drop services for the farmers The assistance offered by the below production costs in the through tele-based services, government extends to factors Philippines, the Local including skype calls, SMSs, of production, cost of living, and Government Executives were and phone calls to maximize drought impacts. encouraged to purchase social distancing. goods directly form the farmers. This is also to Digital Agriculture Kadiwa ni Ani at Kita **Programs** address the challenges in A flagship agri-fishery The Viêt Nam Digital Agriculture product transportation. and marketing program use to Association (VIDA) was launched **Initiatives** improve marketing linkages to upgrade the technology Likewise, in Malaysia and between the urban areas and in Response infrastructure, develop digital Thailand, the same initiatives farmers. This program will tap farming, connect with and were conducted. In Malaysia to COVID-19 the private sector and the expand markets, identify tailored vegetable products were LGUs to facilitate digital solutions for each purchased to reduce waste transportation of good to Agricultivation model, attract and losses which were used Pinov Centers. Under this is investors, and have human as relief goods. In Thailand, the Kadiwa Express and the purchased goods were training. Kadiwa Online to facilitate purchased by the army and transfer of goods and for distributed within boot camps. online order placement. **Agricultural Services**

Programme for Innovation,

Resilience and Extension

(ASPIRE) project

A project of Cambodia that

chicken eggs.

focused stabilizing production

of green leafy vegetables and

Open Supply Chain

In the case of Singapore,

Malaysia assured them a

continuous flow of goods

Similarly, Singapore with six

other countries (including

Myanmar) also released a

joint ministerial statement

indicating maintaining open

supply chains across these

countries.

including food supplies.

Rice ATM

Rice dispensing machines were placed in the rural and urban areas of Viet Nam to accommodate distribution of goods. This dispenses 1.5 kg of rice per household.

Price Freeze under a State of Calamity throughout the Philippines due to the Coronavirus Disease 2019

Increasing Food Prices Due

to Unpredictable Market

Increase in food prices due

to unpredictable market and

change in consumer

purchasing pattern

Retailer

Enhances measures in to continue a price freeze on necessities.

Purchase Limits on Staple

The National Police food stability task force in Indonesia enforced limit of staple foods such as Rice. sugar, vegetable oil, and etc. Similarly, Department of trade and Industry (DTI). Philippines issued an Anti Hoarding and Anti Panic Buying memorandum to avoid unreasonable price increase in necessities.

Consumer

Social Distancing and Other

Precautionary Measures

implemented Social Distancing

Ordinance of one to two

meters in all public areas to

The SEA countries

Change in Consumer

Preference

With increased cases of COVID

behavior and preferences are

19, consumers buying

shifting.

prevent transmission of the virus. In addition, the use of medical mask in public areas is strictly implemented.

Market Shifting Schedules

Numerous Local Government Units in the Philippines enforced shifting schedules for the consumers in its public markets as a measure to prevent increase in cases.

Ecommerce-based Transactions

With the restricted movement brought by Enhance Community Ouarantine and Lockdowns, an increase in online purchasing transactions were recorded in SEA. In Malaysia, some delivery companies recorded a 30 percent increase in orders since the beginning of their Movement Control Order (MCO)

Urban Gardening

As food security becomes a concern, many people are realizing the benefits of growing your food at home. Thus, The Department of Agriculture - Bureau of Plant Industry (DA-BPI) encourages this by distributing free vegetable seeds or seedlings for planting.







- Families & Communities
- Agricultural Value Chain
- Rural Development





- Technology Adaptation
- Agripreneurship





- Students
- Specialists & Experts





- Partnerships: Academe-Industry-Government
- Donors & Co-Funders
- Co-Enablers/Promoters
- Co-Implementers



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• baseline & impact studies





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SERVES

experts as innovation enablers



2

- 1 Collaboration
- 2 Empowered Minds
- 3 Innovation
- 4 Farming



IDEATES

competition on innovation





BLOCKS

•prototyping, tech bank & maker spc 55





A4LIFE

agribusiness incubation





SHARING

Open collaboration platform





The need to support local capacity toward being self-sufficient through well-planned local food production systems.



Across GMS, policy and research support are needed towards:

- development of new and relevant crop varieties and livestock breeds
- seed and livestock production and distribution of technologies
- agricultural systems technologies like water management, pests and diseases management, weather and climate forecasting, etc.
- post-harvest management like drying, processing, and storage
- farm produce transport and logistics systems
- facilities supporting food quality, nutrition, and safety maintenance
- diversified farming, as well as support livelihoods complementary to that of major crops and livestock produced, etc.



There is a need to support more studies and activities related to improving design of financial technologies for farmers, and encouraging wider participation in these financial systems like loans and credit systems and agricultural insurance facilities, among others.



Encourage more programs and budget allocation from governments, as well as private initiatives related to agriculture, such as farm-based small-and-medium enterprises.



There is a need for a massive promotion of sustainable and responsible consumption pattern that provides strong signals for agricultural products that support and observe cleaner production, environmental conservation, and social inclusion.



The growing interest in agriculture needs to be sustained with more targeted capacity building activities of relevant government agencies and groups to specifically promote and generate more agri- entrepreneurs



More studies must be done to ensure the balance between trade priorities and food security goals particularly under the tenets of ASEAN Economic Cooperation. Analyses toward effective coordination mechanisms among countries to reduce trade and food insecurities both at the national and regional levels must be continuously pursued

END OF PRESENTATION

Thank You.

