

Making Regional Cooperation Pathways Work for Agricultural Players in Transformation into Smart Technologies in the CLMVT

Hung Pham
Indochina Research and Consulting (IRC)



Contents



Going Smart

Why transformation into smart technologies needed? Are there alternatives? How have CLMVT countries been in that process?



Smallholder farmers

Will such transformation inclusive or disruptive for SHFs? What is the current situation in the CLMVT?



Making it work for SHFs

Options for SHFs? Regional cooperations to support inclusive transformation

The image features a white background with decorative blue abstract shapes in the corners. The top-right corner has a light blue shape overlapping a darker blue one. The bottom-left corner has a large dark blue shape overlapping a light blue one. The text is centered in the middle of the page.

***Going Smart is a Pathway for
Sustainable Agriculture while Ensuring
Food Security and Serving the Increasing
Demand for Food***

Why Going Smart Is Called For?

Current stages

- Resource intensive
- Intensive farming for yield
- Discharge pollutants
- Food safety concerns
- Aging farmers
- 60-70% more food by 2050
- 80% SHFs earned little

High productivity
Ability to meet future
demand for food
Disruptive for SHFs



Low productivity
Inclusive for SHFs

Crop rotation and diversity; Cover crops;
No-till farming; Organic production;
Agroforestry & animal raising...

Internet of Things; Learning machine,
AI; Big data; Robotics; Precision
agriculture; Digital technologies

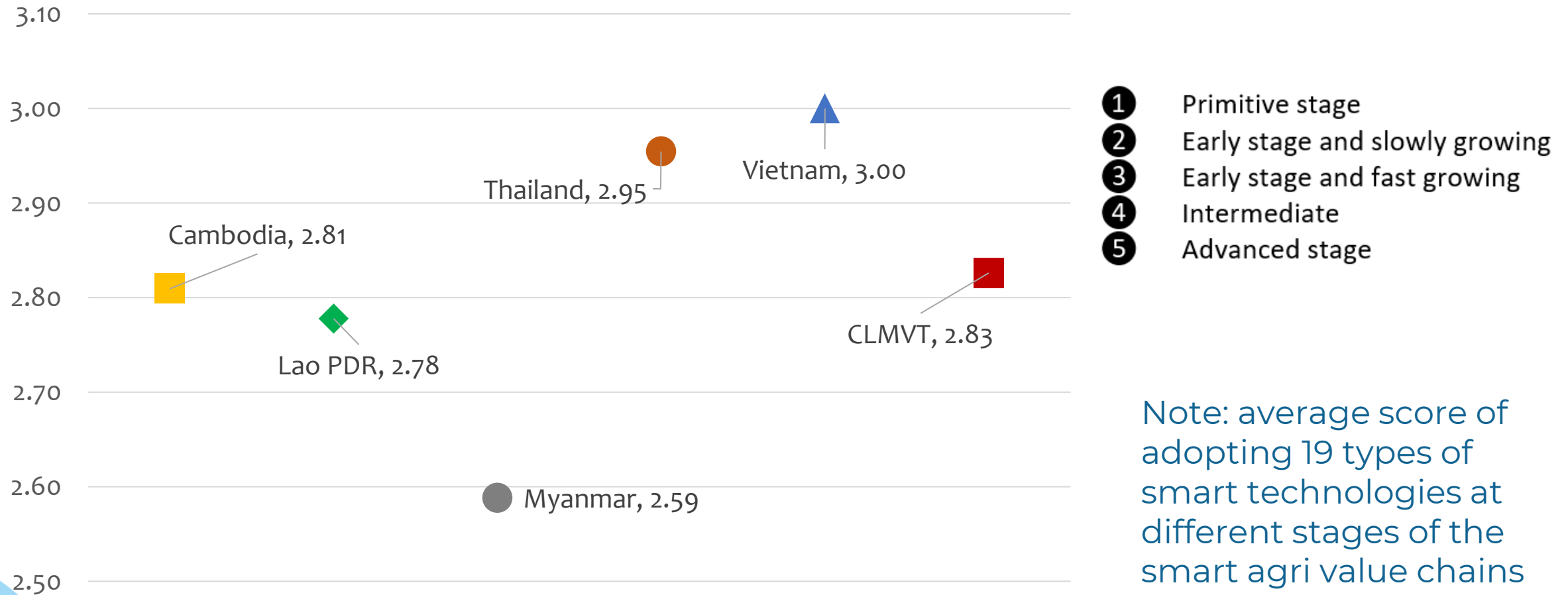


Need to be...

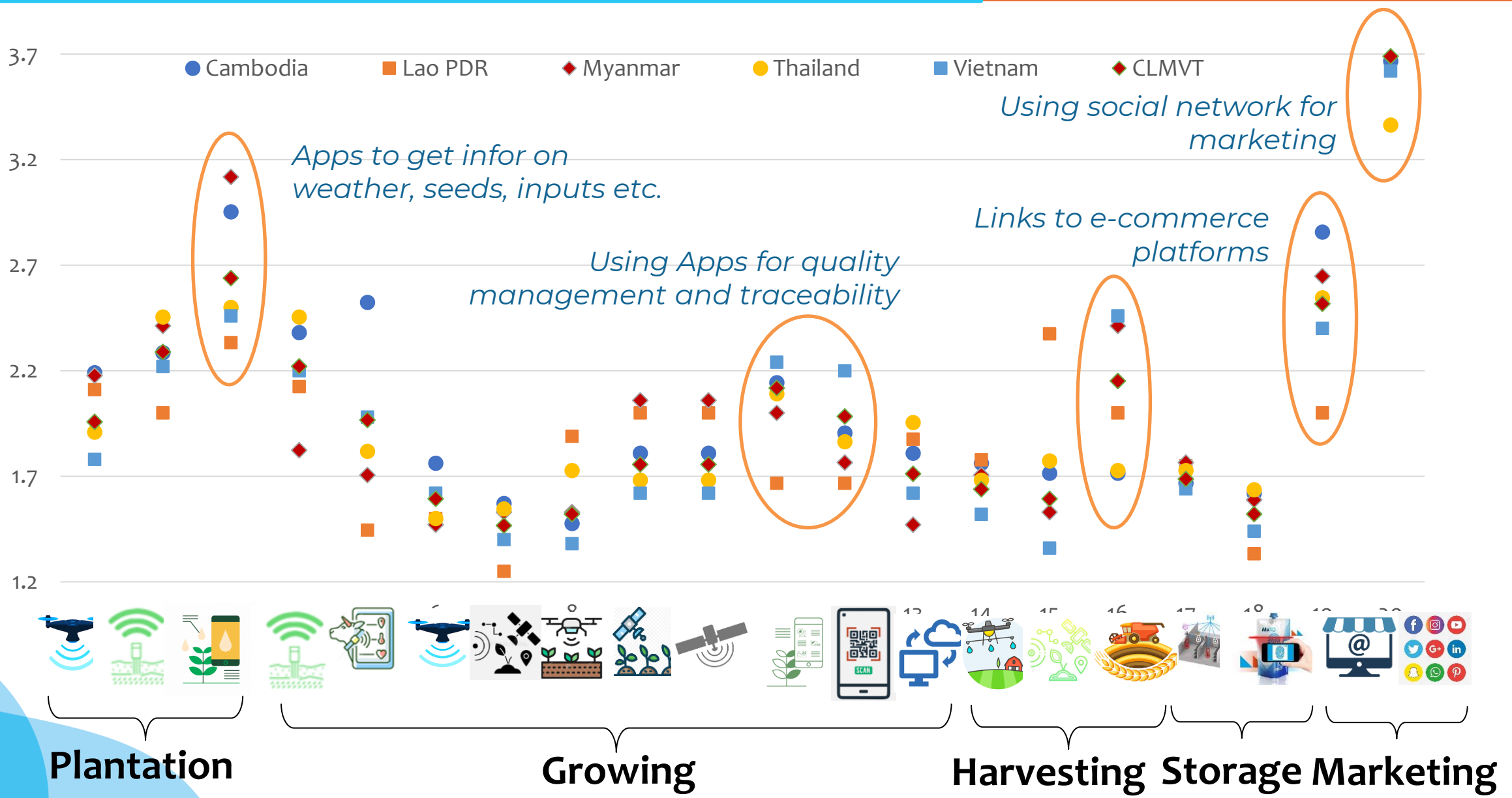
- Less NRs intensive
- Friendly to environment
- Sustainable practices
- Efficient energy
- Quality and food safety

...a nd to produce 60-70% more food by 2050

Status of Smart Agriculture in the CLMVT (1)



Status of Smart Agriculture in the CLMVT (2)



***Going Smart could be transformative for SHFs
conditional to affordable technological
solutions, positive returns without economics of
scale, technical assistance available for technical
knowledge change farming practices***

A Snapshot of SHFs in the CLMVT

Most of the rural poor was SHFs

	% of SHF in total farmer HHs	Landholding threshold	Year of statistics	Sources
Cambodia	75	Less than 2 ha	2011	IFAD (2022)
Lao PDR	73	Less than 2 ha	2012	https://land-links.org/country-profile/laos/#land
Myanmar	85	Less than 2 ha	2011	Myanmar Agriculture Census 2010-11
Thailand	26.5	Less than 1.6 ha	2014	Kwanmuang et al. (2020)
Vietnam	89	Less than 2 ha	2016	Vietnam Agriculture Census 2016

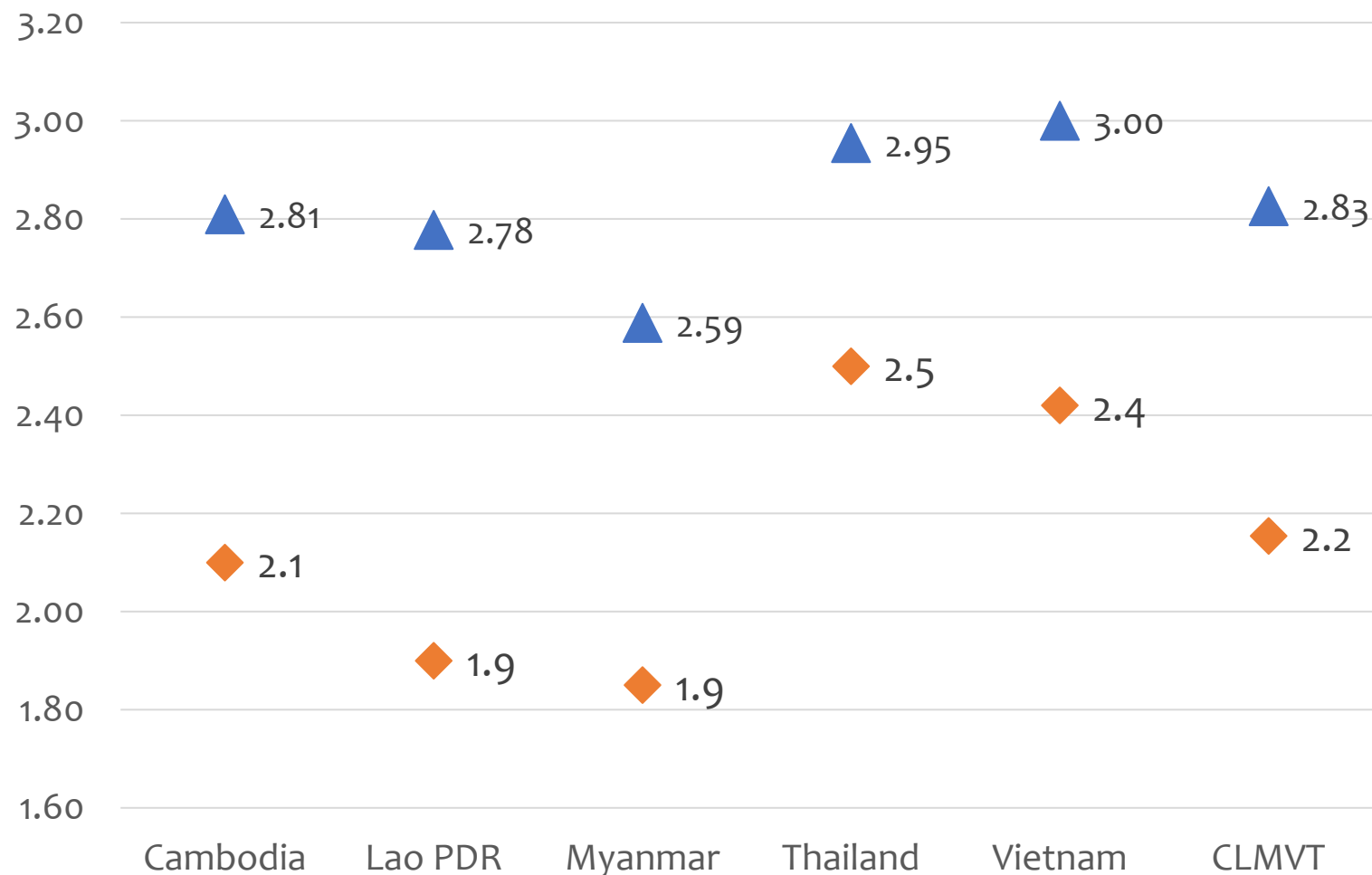
Note: world average was 84% of around 570 million farms were SHFs having <02ha; 70% having less than 01ha

Going Smart could be transformative conditional to (i) **affordable** technological solutions are available; (ii) **positive returns** without economics of scale; (iii) **technical assistance** available for technical knowledge and, more importantly, change farming practices


Challenges for SHFs in Going Smart


Constraints for SHF	Cambodia	Lao PDR	Myanmar	Thailand	Vietnam
Lack of labour due to ageing and urban migration	XX	X	X	XXX	XXX
Lack of technologies affordable and profitable on small farm size	XXX	XXX	XXX	XX	XX
Limited access to types of support from the government and other stakeholders	XX	XX	XXX	X	X
Lack of market access for high-tech agricultural products	XX	XX	XX	X	XX
Lack of opportunities to get technical knowledge and skills	XX	XXX	XXX	X	X
Limited ICT literacy (using smart phone, social network etc.)	XX	XXX	XX	X	X
Resistance to changes	XXX	XXX	XXX	XX	XX


Status of Going Smart by SHFs in the CLMVT



- ① Primitive stage
- ② Early stage and slowly growing
- ③ Early stage and fast growing
- ④ Intermediate
- ⑤ Advanced stage

 Overall status of smart technologies in agriculture

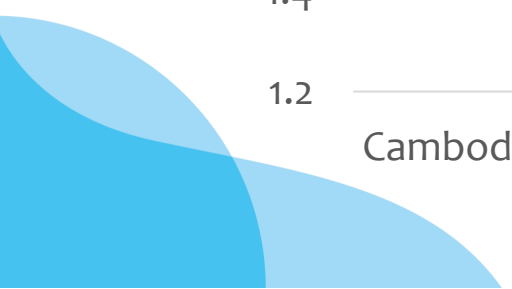
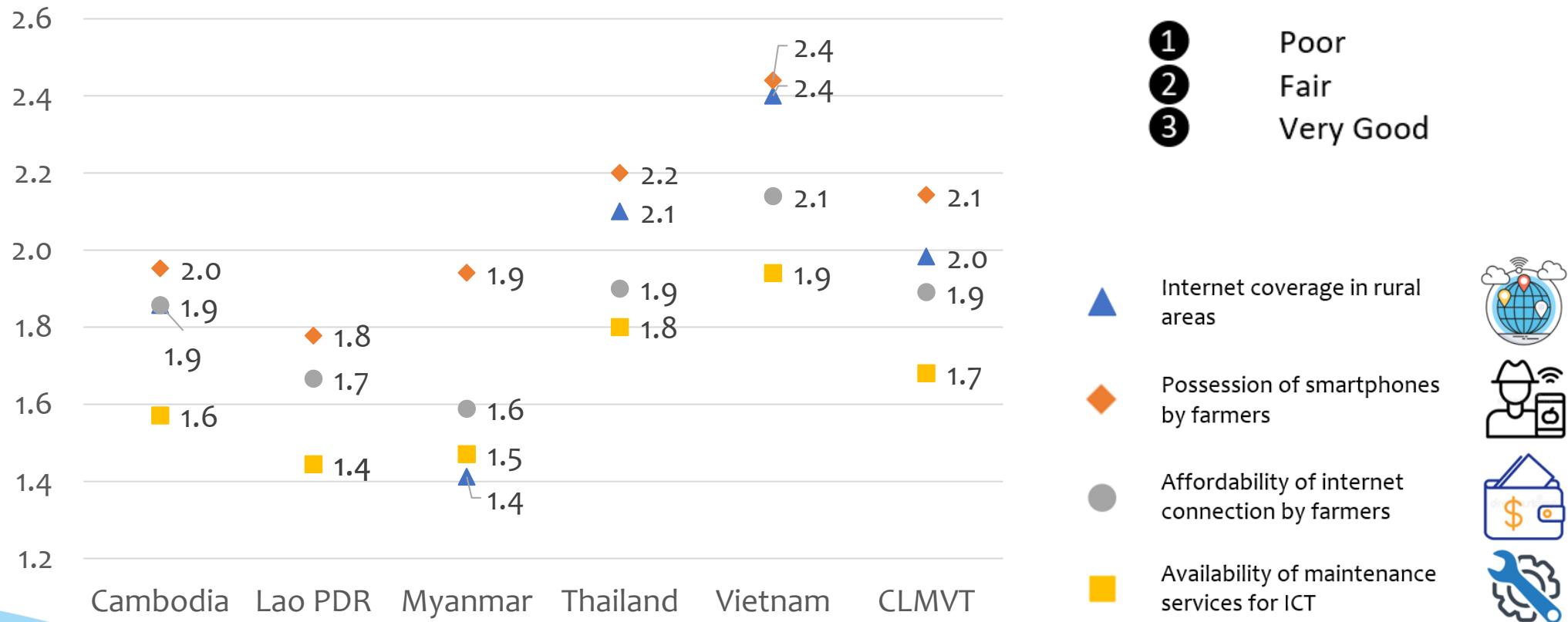
 Status of smart technology adoption by **smallholder farmers**



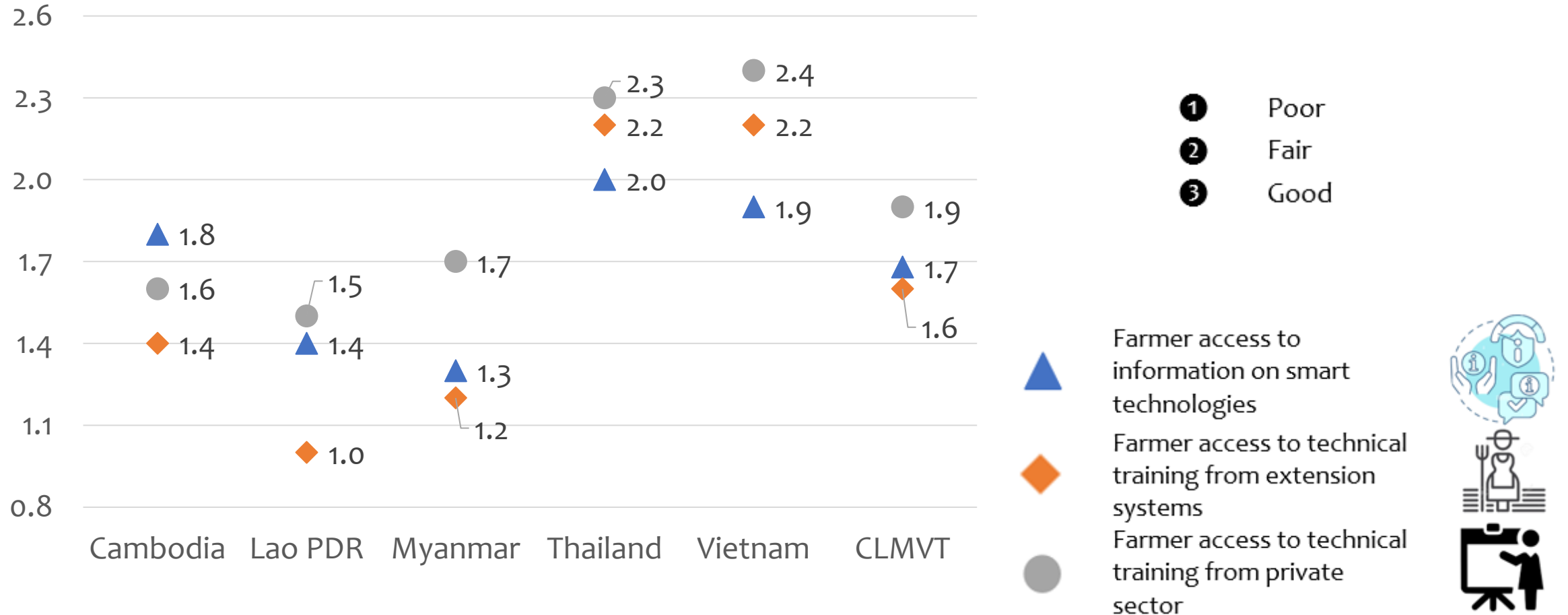
***There are gaps to make Going Smart
transformative for SHFs. Regional
cooperation is called for to address
these gaps***

Making it Affordable

- Digital technologies are most accessible to SHFs with smartphone and internet connection
- Investment in rural ICT infrastructures (below) and ICT literacy are instrumental

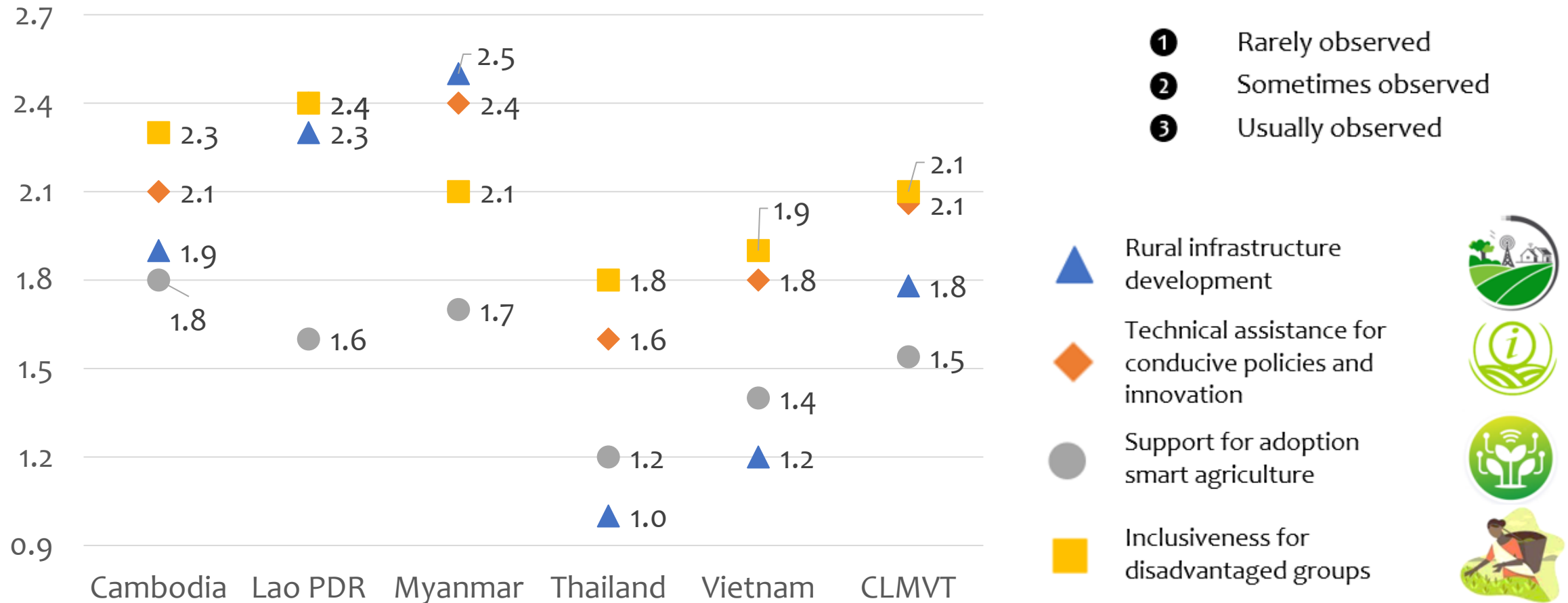


Improving Access to Knowledge and Skills



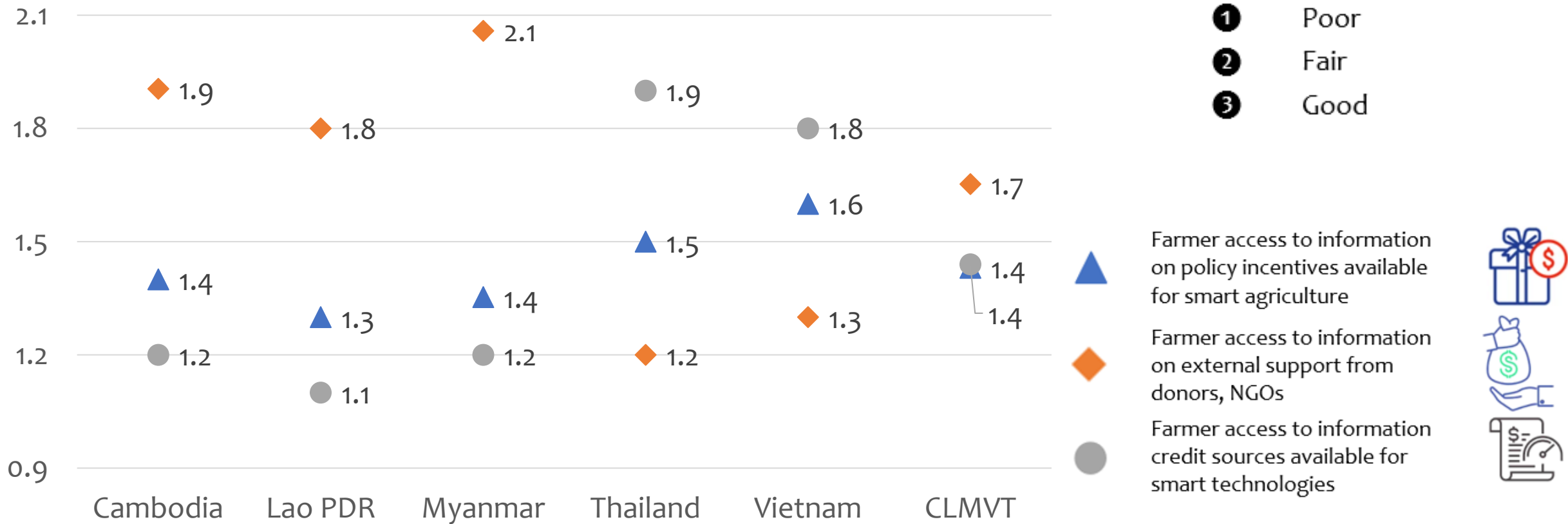
Key role of extension services by the **private sector** (i.e., input suppliers) in the GMS **Limited** public extension services in the CLM

Cooperation for External Support



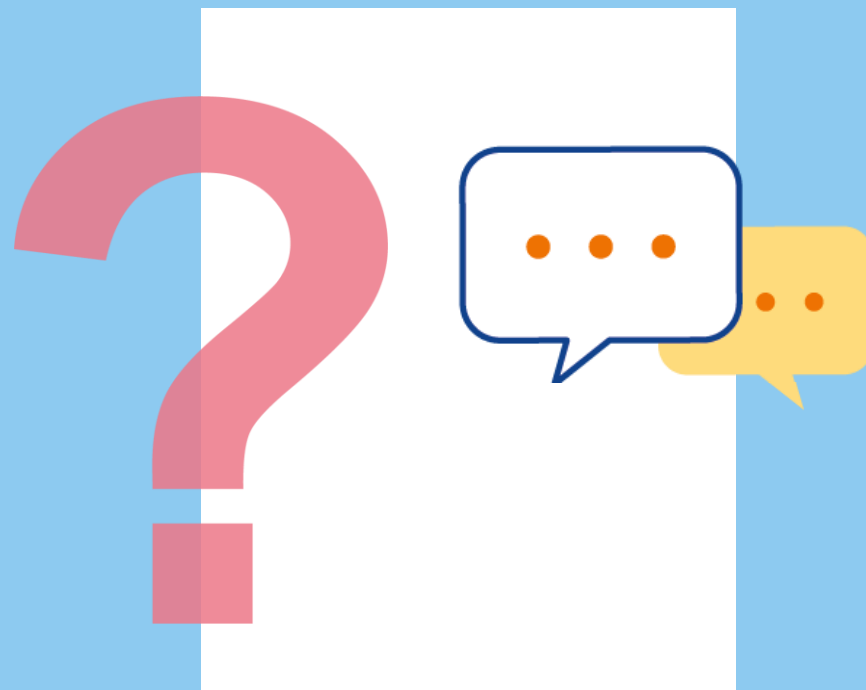
- Donors and NGOs were active in the **CLM countries**, where rural infras, inclusiveness, policy improvements were the focuses.
- Supporting smart agriculture is **not a priority**

Making Policy Incentives for SHFs



- Public policy incentives available but **farmers' access was limited**
- Policy incentives were usually **cumbersome** in procedures. Insufficient resource allocation making these incentives **“on paper”**
- Usually **biased** to “established” actors at expenses of micro or SMEs

Q&A





ORGANIZED BY

CO-HOSTED BY



**THANK
YOU.**