

renewables – Made in Germany.

Renewable Energy Industry and Export Forum South East Asia

Daniel Busche / Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH
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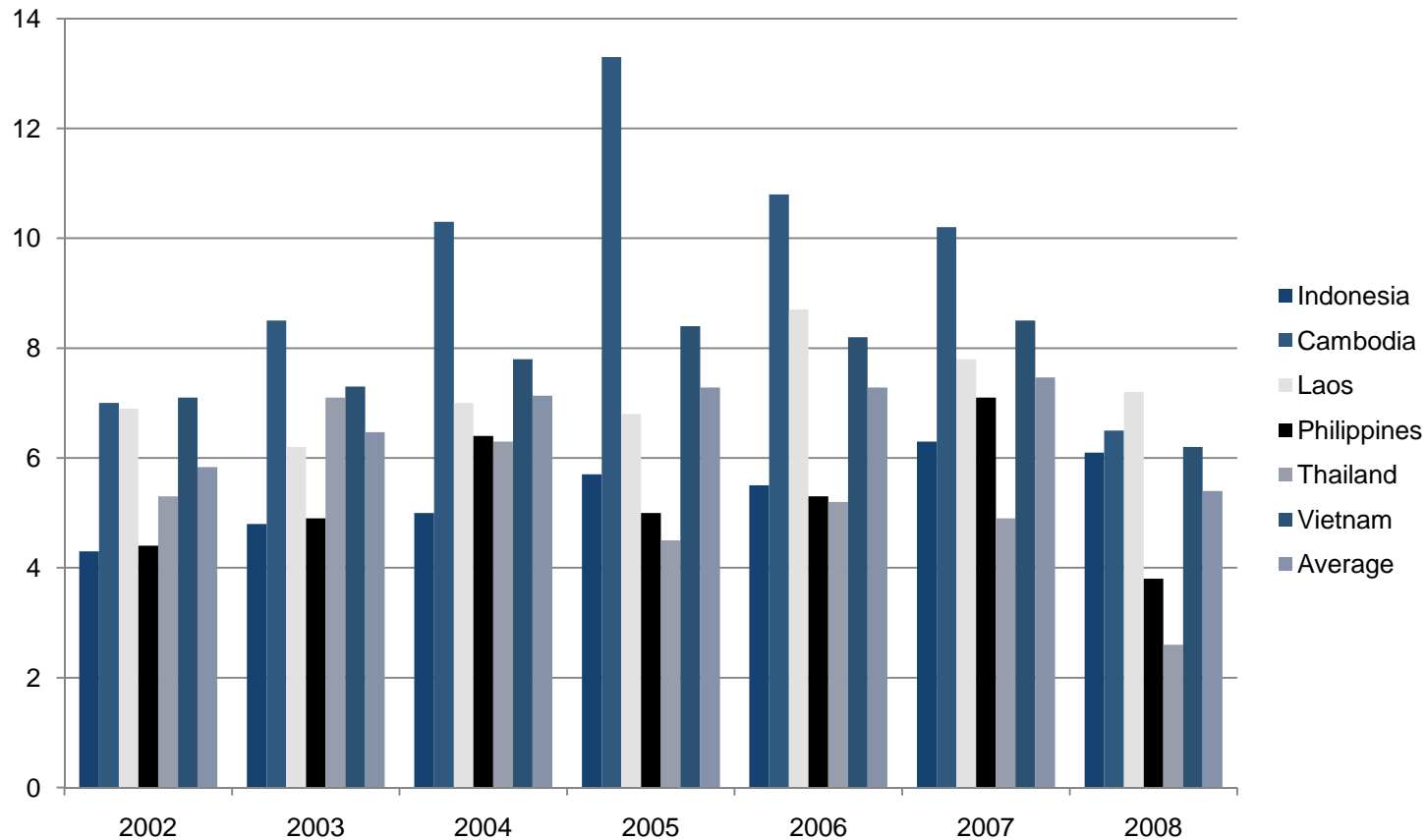
This session's objective: Opportunity seeking.

Looking at technology-specific market potentials and barriers:

- ▶ RE potentials and market segments
- ▶ RE relevant framework conditions
- ▶ Level of market sophistication and level of competition
- ▶ Expected market developments and challenges
- ▶ Lessons learnt from first movers

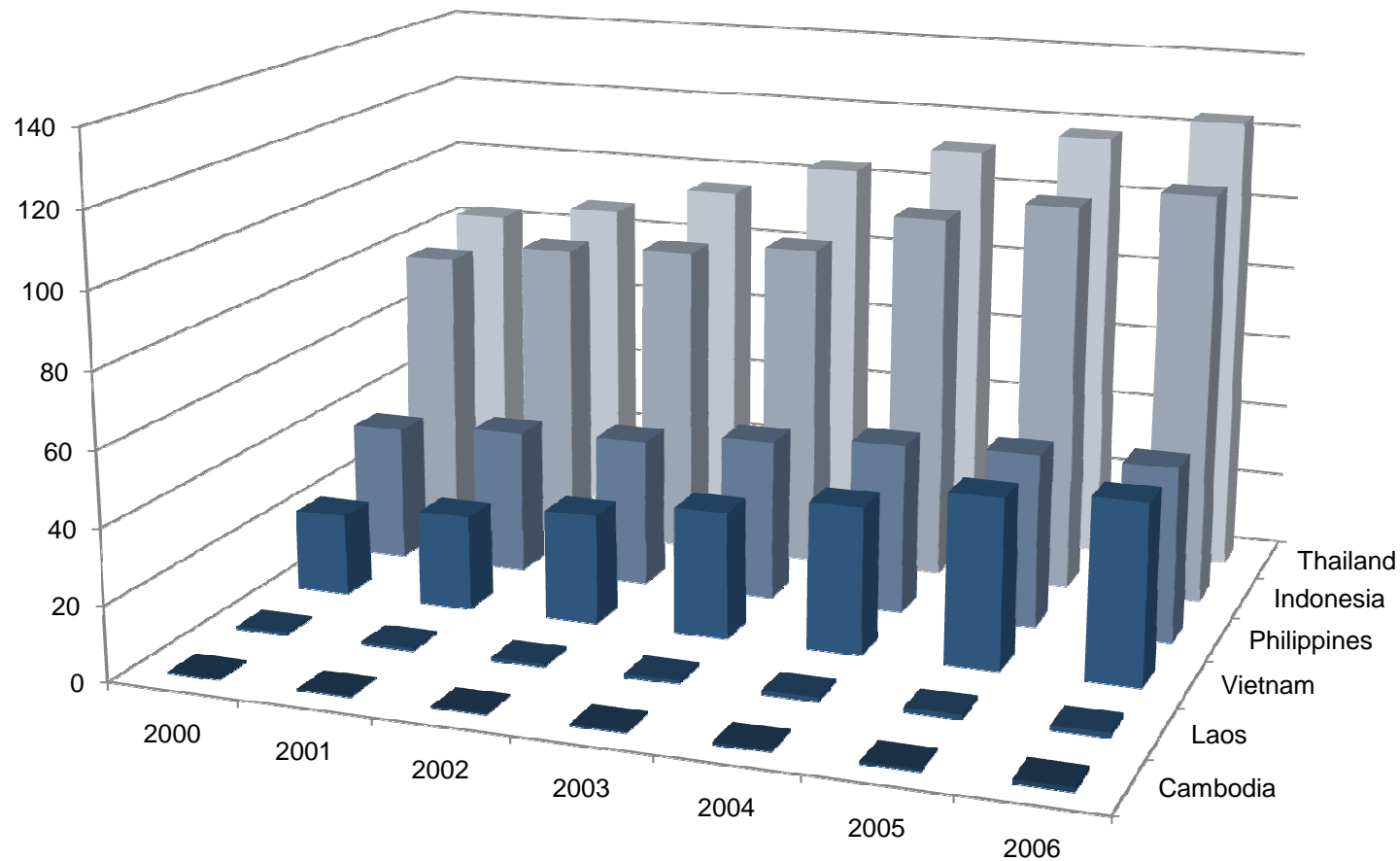
South East Asia: dynamic market growth.

Economic development (in percent)



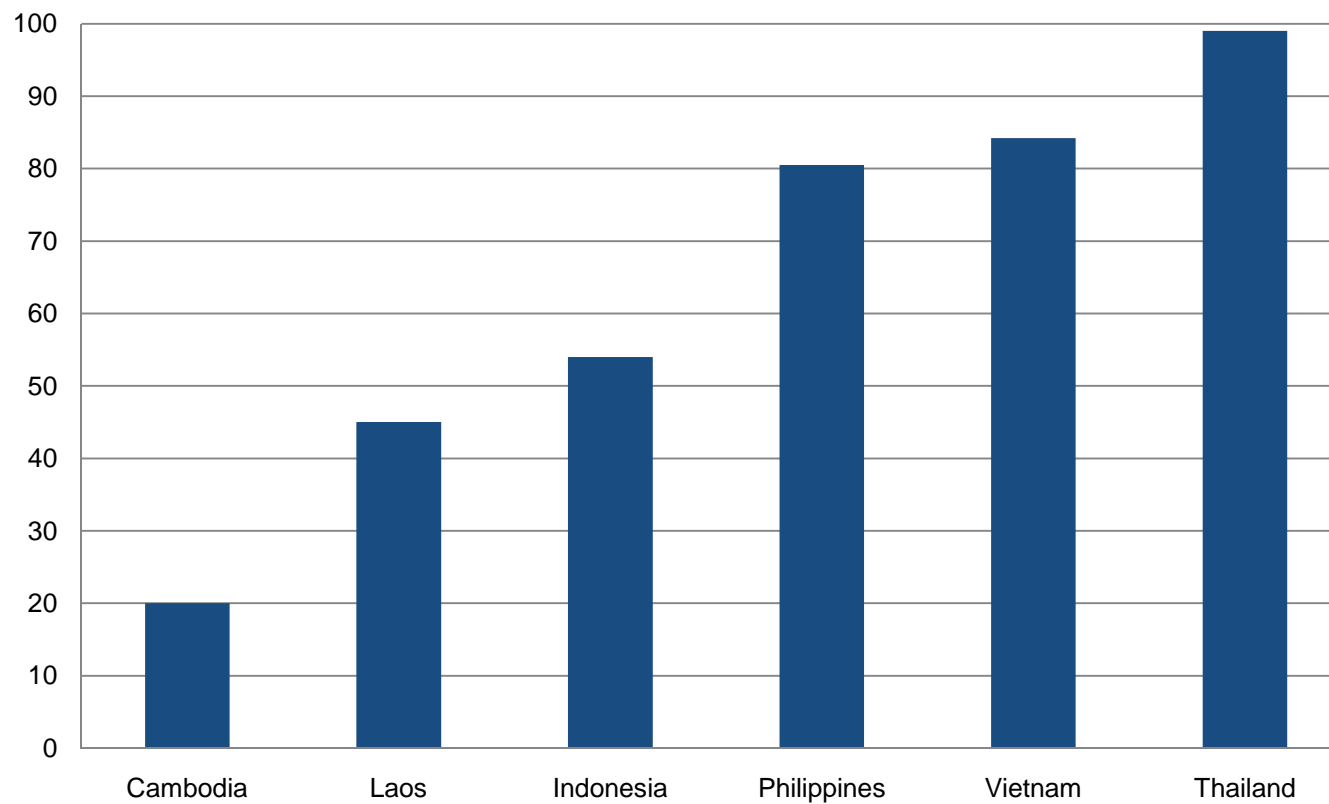
Accelerated economic growth, rising energy consumption.

Development of electricity consumption (in GWh)



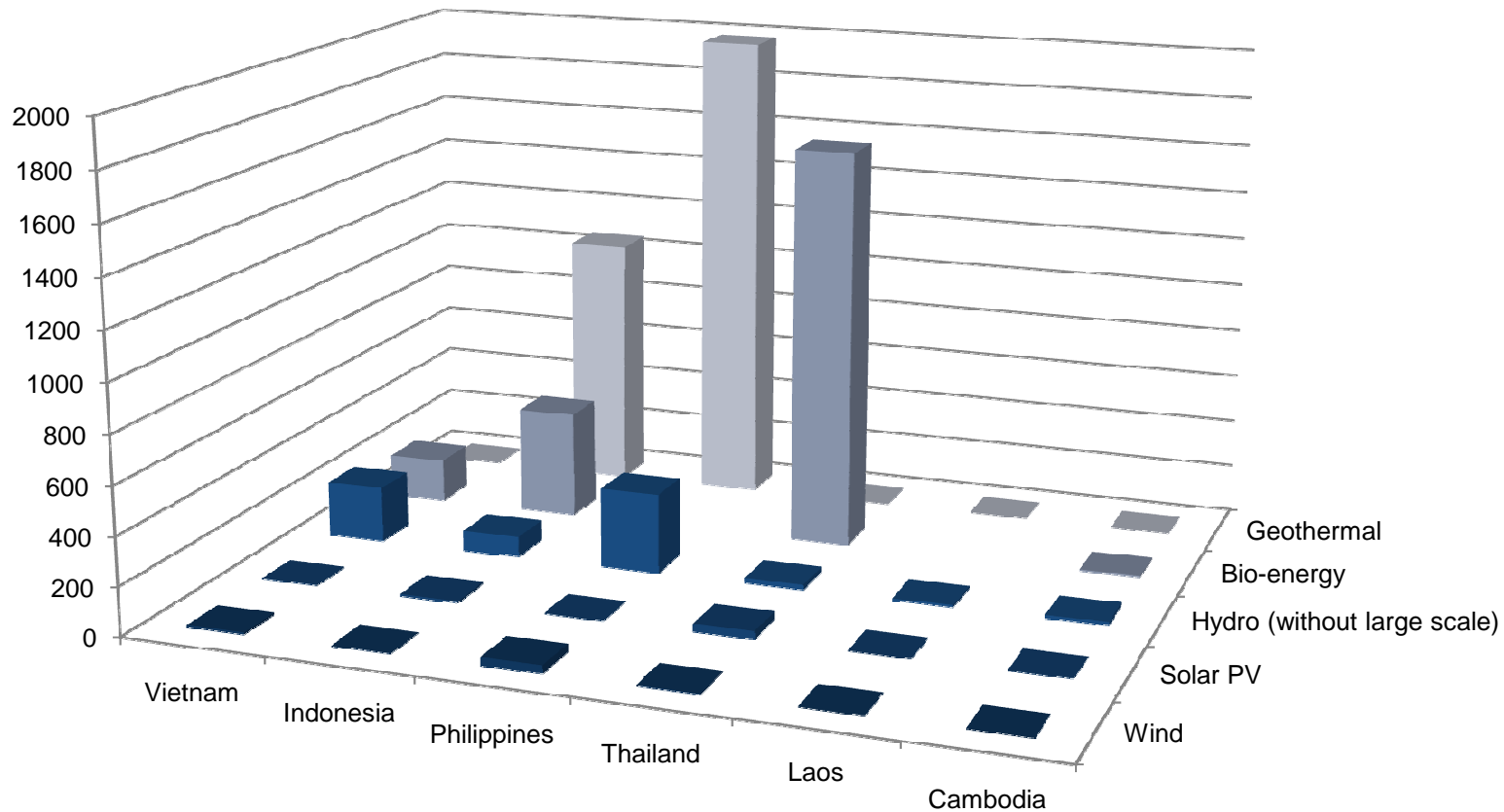
Off-grid to grid-connected opportunities.

Electrification rates (in percent)



Current utilisation of renewable energy sources.

Electricity generation from RE (installed capacity in MW)



Ambitious political targets for renewables, a few examples.

Electricity generation from RE (installed capacity in MW)

RE	Vietnam	Indonesia	Philippines	Thailand	Laos	Cambodia
Wind	8	1.2	33	3.2	0	0.01
Solar / PV	2	8	1	32	0,2	1.1
Hydro (without large scale)	230	84	330	20	8,7	13.4
Bio-energy	180	445		1656		5.8
Geothermal	0	1052	1978	0	0	0
Total	420	1590.2	2342	1711.2	8.9	20.31

2025: 550 MW
 2025: 250 MW
 2011: 115 MW
 2011: 2800 MW

RE relevant framework conditions in selected countries.

	Thailand Vietnam	Indonesia Philippines	Laos Cambodia
Policies and regulatory framework <i>Programmes, targets, tariffs, incentives, grid access, licensing, standards, taxes, duties, etc.</i>	+++	++	+
Awareness on public and policy level <i>Acceptance, image, information, etc.</i>	++	++	+
Capacities of the private sector <i>Technical know-how, economic expertise, etc.</i>	+++	++	(+)
Public investments, loans and financing options <i>Donors, development banks, local financial sector, etc.</i>	(+)++	++	(+)+
Private sector driven market organisation <i>Industry and trade associations, etc.</i>	++	+	(+)
Investment conditions <i>agreement on the protection of investments, legal certainty, due process of law, etc.</i>	+++	++	+

Potentials for „renewables – Made in Germany.“

Promising market trends for RE

- ▶ South East Asia marked by rising energy demand
- ▶ Broad scope of RE potentials
- ▶ Awareness for RE for diversification of energy mix
- ▶ Off-grid to grid-connected opportunities
- ▶ Market segments with strong players
- ▶ Favourable framework conditions „on the rise“

Renewable Energy Project Development Programme

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