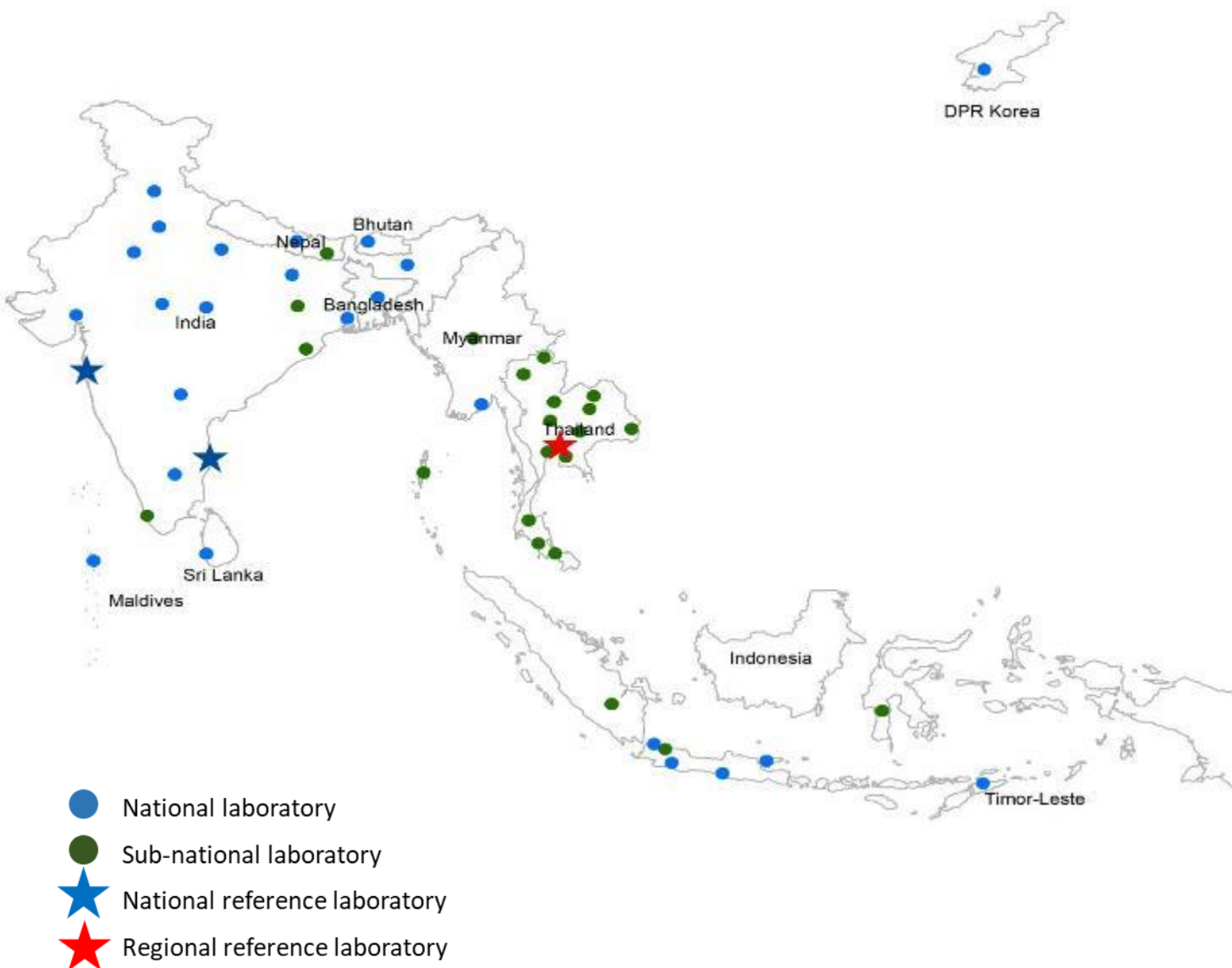


# S03- Laboratory

Laboratory supported Case based surveillance established in all 11 countries.

# Measles and rubella laboratory network in SEAR continues to expand



Country	National laboratory	Sub-national laboratory	National reference laboratory	Regional reference laboratory	Total
Bangladesh	1				1
Bhutan	1				1
DPR Korea	1				1
India	11	5	2		18
Indonesia	4	3			7
Maldives	1				1
Myanmar	1	1			2
Nepal	1	1			2
Sri Lanka	1				1
Thailand		13		1	14
Timor Leste	1				1
<b>Total</b>	<b>23</b>	<b>23</b>	<b>2</b>	<b>1</b>	<b>49</b>

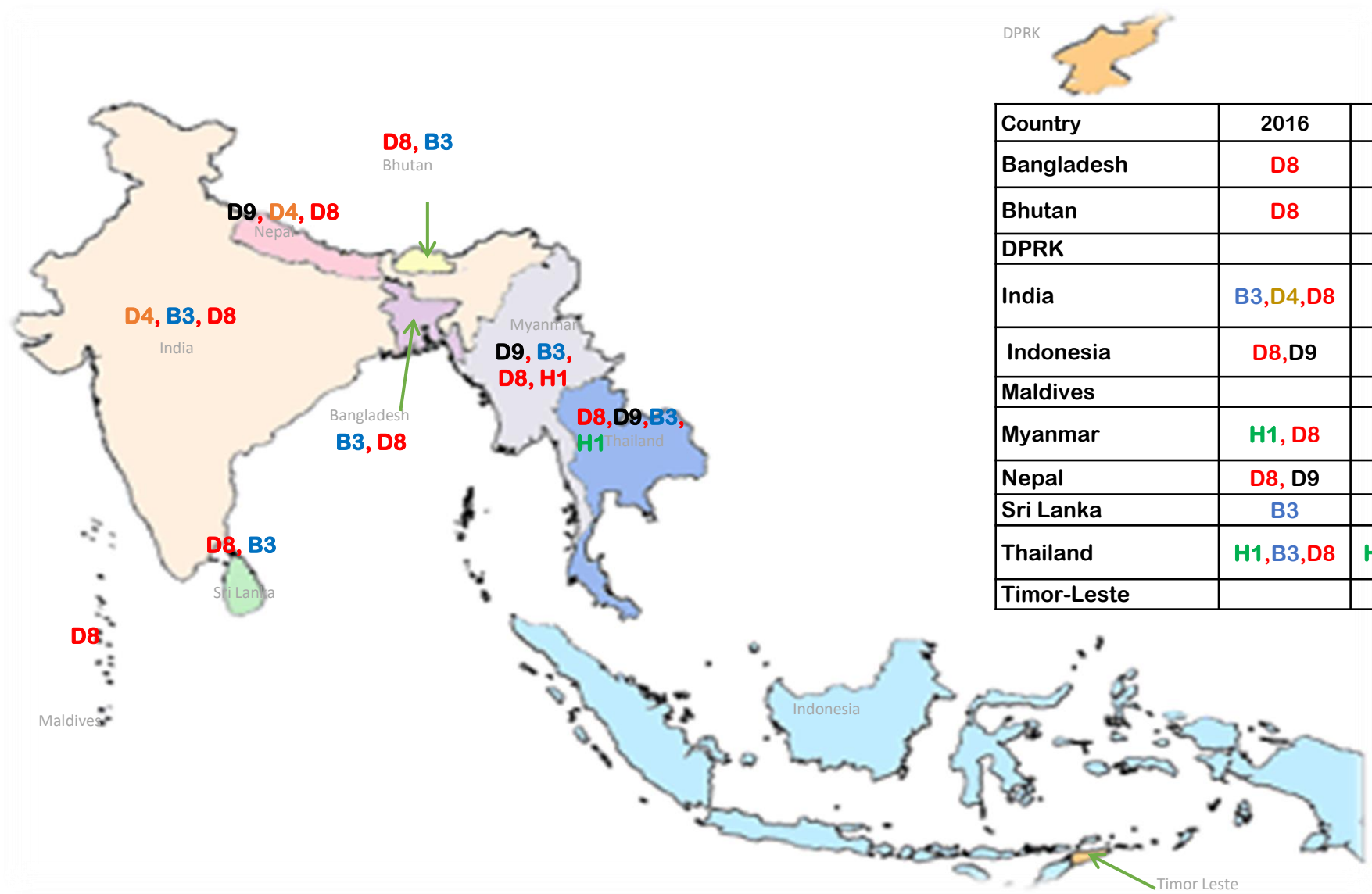
Country	Serology only (IgM/IgG)	Serology + Molecular (RT-PCR)	Serology + Molecular (RT-PCR) + Sequencing
Bangladesh		1	
Bhutan		1	
DPR Korea		1	
India	5	12	1
Indonesia	3	2	2
Maldives		1	
Myanmar	1	1	
Nepal	2		
Sri Lanka		1	
Thailand	9	4	1
Timor- Leste		1	
<b>Total</b>	<b>19</b>	<b>26</b>	<b>4</b>

# Laboratory performance indicators have been maintained - recent desk review of MR lab net has confirmed proficiency status of labs

Countries	Number of serum specimens received in laboratory		% serum specimens received at laboratory w/in 5 days of collection		% specimens tested for serology of specimens received in the laboratory		% serology results reported w/in 4 days of specimen received at laboratory	
	2019	2020	2019	2020	2019	2020	2019	2020
Bangladesh	9,848	4,470	100	99	100	100	86	53
Bhutan	280	109	65	69	98	99	90	99
DPR Korea	510	458	100	100	83	100	100	53
India	18,592	11,888	100	98	95	96	84	83
Indonesia	6,606	2,876	96	99	87	83	89	76
Maldives	56	244	88	98	100	100	85	100
Myanmar	4,807	442	96	95	100	100	84	100
Nepal	2,026	1,227	94	100	100	100	92	83
Sri Lanka	360	73	82	79	98	97	92	93
Thailand	7,866	1,532	57	65	98	98	100	100
Timor-Leste	444	100	100	97	98	93	100	100
<b>SEAR</b>	<b>51,395</b>	<b>23,419</b>	<b>92</b>	<b>96</b>	<b>96</b>	<b>96</b>	<b>91</b>	<b>85</b>

\*Data Source: SEAR MR Surveillance database as of 13 January 2021

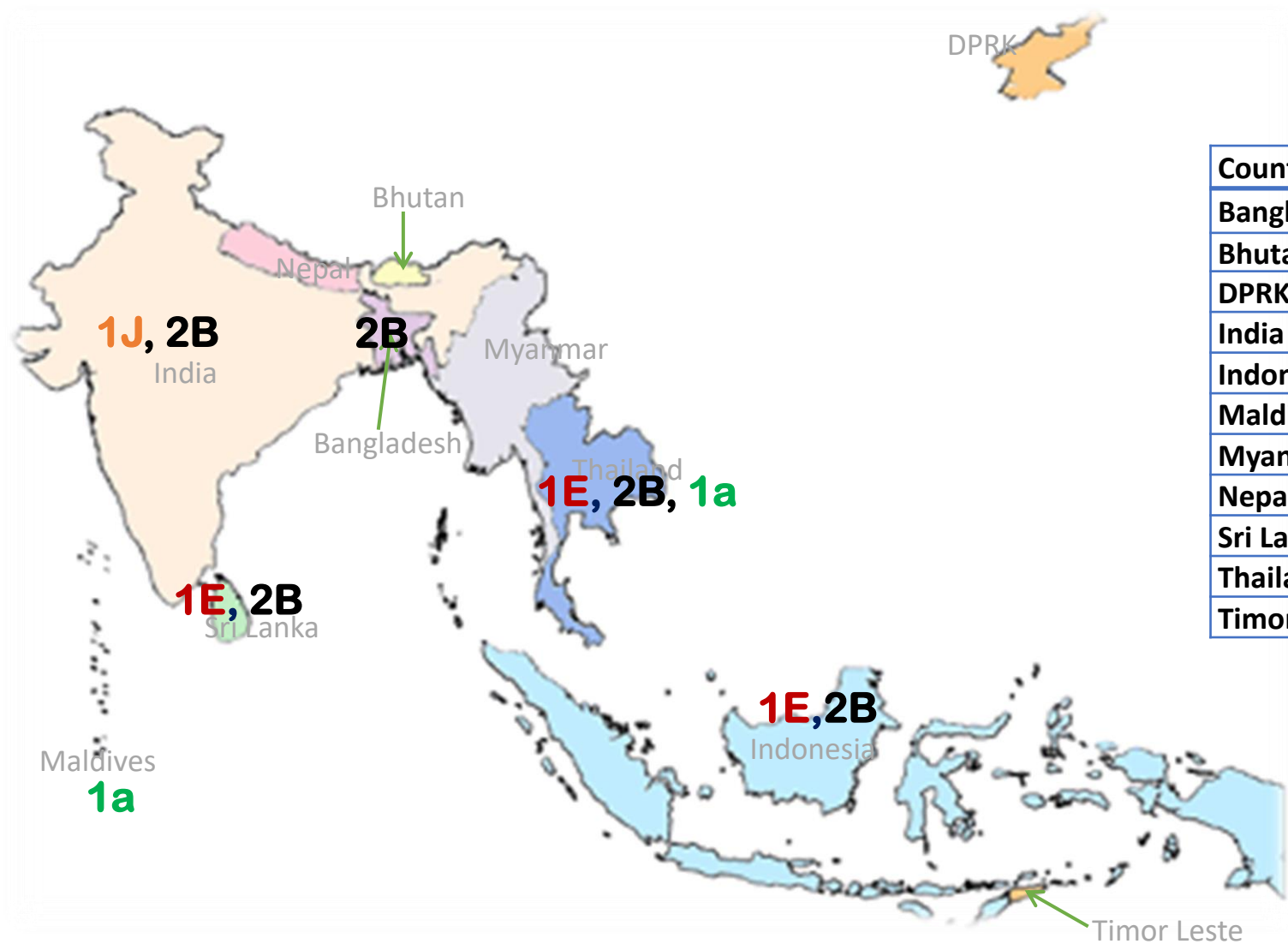
# Measles genotypes circulating in SEAR between 2013 and 2020\*



Country	2016	2017	2018	2019	2020
Bangladesh	D8	B3, D8	B3, D8	B3, D8	B3
Bhutan	D8	D8	D8		
DPRK					
India	B3,D4,D8	D4,D8	D8	B3, D4, D8	B3, D4, D8
Indonesia	D8,D9	D8	D8		
Maldives			D8		D8
Myanmar	H1, D8	H1	D8, H1	B3, D8,H1	
Nepal	D8, D9		D8	D4, D8	
Sri Lanka	B3			B3, D8, H1	
Thailand	H1,B3,D8	H1,B3, D8	B3, D8,H1	B3, D8,H1	D8
Timor-Leste					

\*Data as of 12 January 2021

# Rubella genotype distribution in SEAR between 2013- 2020\*



Country	2016	2017	2018	2019	2020
Bangladesh					
Bhutan					
DPRK					
India	1J, 2B	2B	2B	2B	
Indonesia					
Maldives					1a
Myanmar					
Nepal					
Sri Lanka					
Thailand		2B	1E	1a, 1E	1E
Timor-Leste					

\*Data as of 12 January 2021

# Quality Assurance of SEAR-MRLN

## Process:

- Consortium of 5 experts in the field of laboratory quality management systems is formed including WHO-HQ, Global Laboratory Coordinator for quality assessment of Reference and National measles rubella laboratories in the region.
- Detailed desk review of each laboratory done based on performance indicators, scores of proficiency test panels and internal audit reports.
- Three day long debriefing meeting conducted to discuss laboratory specific findings, conclusions and recommendations to improve the laboratory functioning further.

# Quality Assurance of SEAR-MRLN

## Findings:

- Total of 44 measles rubella laboratories assessed in categories of regional reference, national reference, national and sub-national laboratories.
- All laboratories attained proficient status for measles and rubella functioning except for one:
  - IPM Hyderabad, India: status pending for on-site assessment
- Sri Lanka laboratory for the first time participated in measles rubella molecular EQA practice panel. The efforts were noteworthy and they will be invited for participation in main Global molecular panel
- MR laboratory at Port Blair, India, is receiving very less number of specimens, efforts will be made to ensure that they test at least 50 specimens annually.