1   **SEA-Rice-Ci10: High-resolution Mapping of Rice Cropping Intensity and Harvested Area**

2   **Across Southeast Asia using the Integration of Sentinel-1 and Sentinel-2 Data**

3   **(Supplementary Materials)**

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Table S1. Percentage of Paddy Rice Harvested Area in Southeast Asia Countries from this study.

Country	Total harvested area from This study (x 10³ ha)	Percentage (%)
Indonesia	8,452.02	19.69
Timor-Leste	10.95	0.03
Malaysia	485.46	1.13
Philippines	3,289.13	7.66
Vietnam	6,247.96	14.56
Cambodia	3,923.99	9.14
Laos	838.14	1.95
Thailand	11,233.21	26.18
Myanmar	8,434.25	19.65
Total	**42,915.11**	**100**

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Table S2. Percentage of Paddy Rice Growing Area in Southeast Asia Countries from this study and NESEA-10m.

Country	Total rice growing area (x 10³ ha)	Percentage (%)	NESEA-Rice10m growing area (x 10³ ha)	Percentage (%)
Indonesia	4,359	15.28	3,032	23.49
Timor-Leste	11	0.04	4	0.03
Malaysia	243	0.85	251	1.94
Philippines	1,645	5.77	1,112	8.62
Vietnam	3,122	10.94	2,295	17.78
Cambodia	3,150	11.04	1,198	9.28
Laos	787	2.76	161	1.25
Thailand	9,159	32.10	1,454	11.27
Myanmar	6,053	21.22	3,399	26.34
Total	**28,529**	**100**	**12,906**	**100**

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Table S3. The relative discrepancy between paddy rice growing area of this study and NESEA-Rice10m and 20mRice-MSEAsia.

Country	Total rice growing area (x 10³ ha)* (a)	NESEA-Rice10m growing area (x 10³ ha) (b)	20mRice-MSEAsia growing area (x 10³ ha) (c)	Relative discrepancy (%) between	
				(a) and (b)	(a) and (c)
Indonesia	4,359	3,032	NA	30.44	NA
Timor Leste	11	4	NA	63.64	NA
Malaysia	243	251	NA	-3.29	NA
Philippines	1,645	1,112	NA	32.40	NA
Vietnam	3,122	2,295	3,313	26.49	-6.12
Cambodia	3,150	1,198	2,820	61.96	10.47
Laos	787	161	853	79.54	-8.39
Thailand	9,159	1,454	12,812	84.12	-39.88
Myanmar	6,053	3,399	5,354	43.85	11.55
Total	**28,527**	**12,907**		**54.75**	

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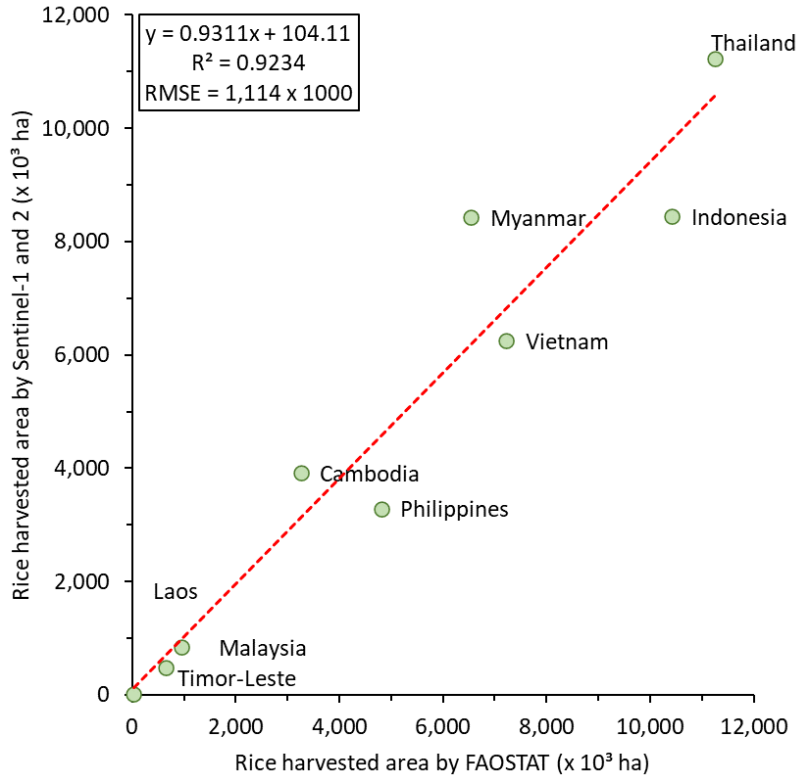
Figure S1. Comparison of Paddy Rice Harvested Area from our study and FAOSTAT 2021 data in Southeast Asia Countries.

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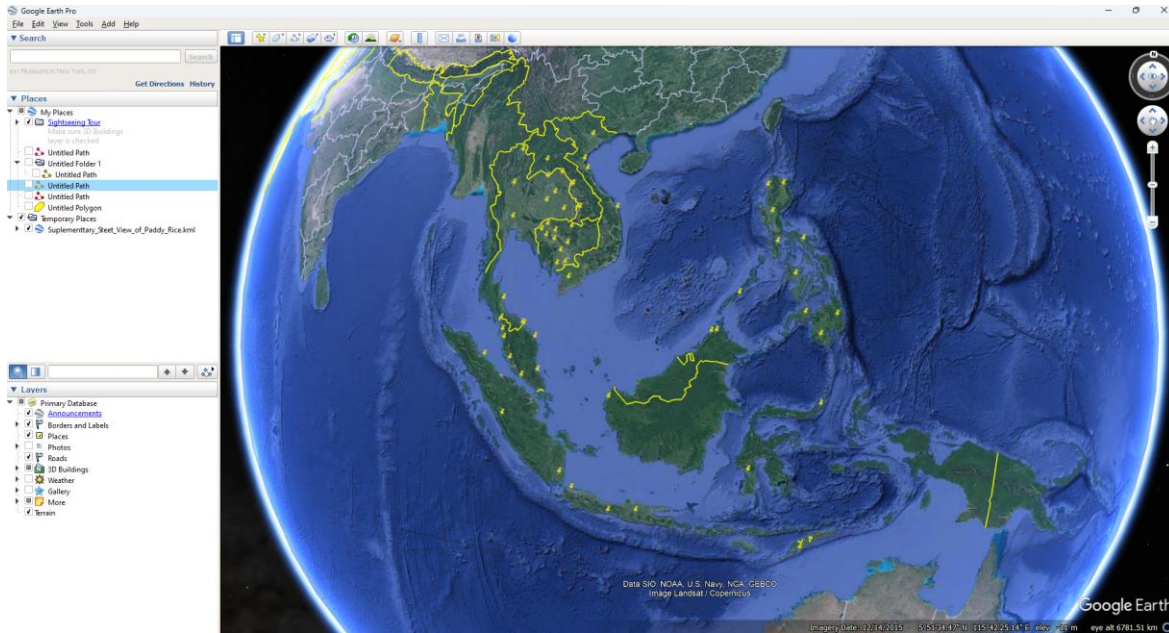
Figure S2. Point observation of Paddy Rice in Southeast Asia on © Google Earth in KML file.

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Suplementtary_Steet_
View_of_Paddy_Rice.kr

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57 **Table S4**. Paddy Rice in Southeast Asia from © Google Street View imagery data

Country	Longitude	Latitude	Figure
Indonesia	99.01479993	3.595400348	
Indonesia	100.6859553	-0.7922225	
Indonesia	105.3989329	-4.93001205	
Indonesia	106.3672811	-6.07022163	

Country	Longitude	Latitude	Figure
Indonesia	109.2402942	-7.65911943	
Indonesia	111.3780629	-7.49826424	
Indonesia	124.9221958	1.299268945	
Indonesia	119.702954	-3.82683575	
Indonesia	109.0725447	1.134228259	

Country	Longitude	Latitude	Figure
Indonesia	124.2340546	-10.1040428	
Malaysia	100.2341456	6.429452855	
Malaysia	100.4194023	5.583964756	
Malaysia	100.5887379	4.985093165	
Malaysia	101.167579	3.487900869	

Country	Longitude	Latitude	Figure
Malaysia	102.1857525	2.240226915	
Malaysia	102.158006	6.12328591	
Malaysia	103.1343191	5.222476556	
Malaysia	103.4710105	2.750777274	
Malaysia	116.456845	6.388001183	

Country	Longitude	Latitude	Figure
Malaysia	116.841941	6.455242827	
Thailand	102.7388647	17.56724433	
Thailand	103.8845584	17.91169093	
Thailand	104.4585999	15.00107596	
Thailand	102.9334704	15.6241443	

Country	Longitude	Latitude	Figure
Thailand	103.5347287	16.27858118	
Thailand	100.1222702	19.71767444	
Thailand	99.87483007	16.94460257	
Thailand	100.2484223	14.25356076	
Thailand	100.2998385	7.948425495	

Country	Longitude	Latitude	Figure
Thailand	102.0446077	6.197305243	
Philippines	121.6318658	17.80729703	
Philippines	120.7931634	15.56557685	
Philippines	121.2159232	13.27876624	
Philippines	123.2199645	13.59780772	

Country	Longitude	Latitude	Figure
Philippines	120.4152337	17.61544304	
Philippines	122.6309367	10.89980732	
Philippines	118.4257368	9.310586175	
Philippines	123.4670051	8.080947125	
Philippines	125.9286177	8.024919419	

Country	Longitude	Latitude	Figure
Philippines	124.682016	6.486463055	
Cambodia	105.0390846	10.93035239	
Cambodia	104.392425	10.7853001	
Cambodia	104.5873266	11.7904319	
Cambodia	105.0930191	12.3825402	

Country	Longitude	Latitude	Figure
Cambodia	105.2610298	13.67147785	
Cambodia	103.279965	12.89624009	
Cambodia	103.9765528	12.61861772	
Cambodia	102.8305285	13.33648317	
Cambodia	103.2720483	13.78196331	

Country	Longitude	Latitude	Figure
Cambodia	103.9776023	13.2874801	
Vietnam	105.4245093	9.804014279	
Vietnam	106.0066923	21.15429258	
Vietnam	108.7417994	15.31151373	
Vietnam	105.9667656	18.29433381	

Country	Longitude	Latitude	Figure
Vietnam	105.6010333	19.09373115	

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