

# Supplement of

## **The fate of land evaporation – A global dataset**

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## General information on the content of the supporting information (SI)

The SI provides the following supplementary materials:

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- Monthly average evaporationsheds for the three chosen example land grid cells of the main article
  - Cell at 39.0° N latitude & 94.5° W longitude – Kansas City, US (Figure S1 to Figure S4)
  - Cell at 28.5° N latitude & 78.0° E longitude – Delhi, India (Figure S5 to Figure S8)
  - Cell at 0.0° latitude & 33.0° E longitude – Kampala, Uganda (Figure S9 to Figure S12)

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- Monthly average evaporationsheds for the three chosen example countries of the main article
  - Brazil (Figure S13 to Figure S16)
  - Egypt (Figure S17 to Figure S20)
  - Laos (Figure S21 to Figure S24)

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- Monthly average evaporationsheds for the three chosen example basins of the main article
  - Basin ID 1463188 – part of the Rio Grande basin (Figure S25 to Figure S28)
  - Basin ID 1019324 – part of the Danube basin (Figure S29 to Figure S32)
  - Basin ID 2245569 – part of the Murray-Darling basin (Figure S33 to Figure S36)

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Based on sample scripts provided within the dataset, average monthly or yearly evaporationsheds can be plotted for any land grid cell, country or basin of interest. An additional online viewer can be used to directly look up plots for any land grid cell.

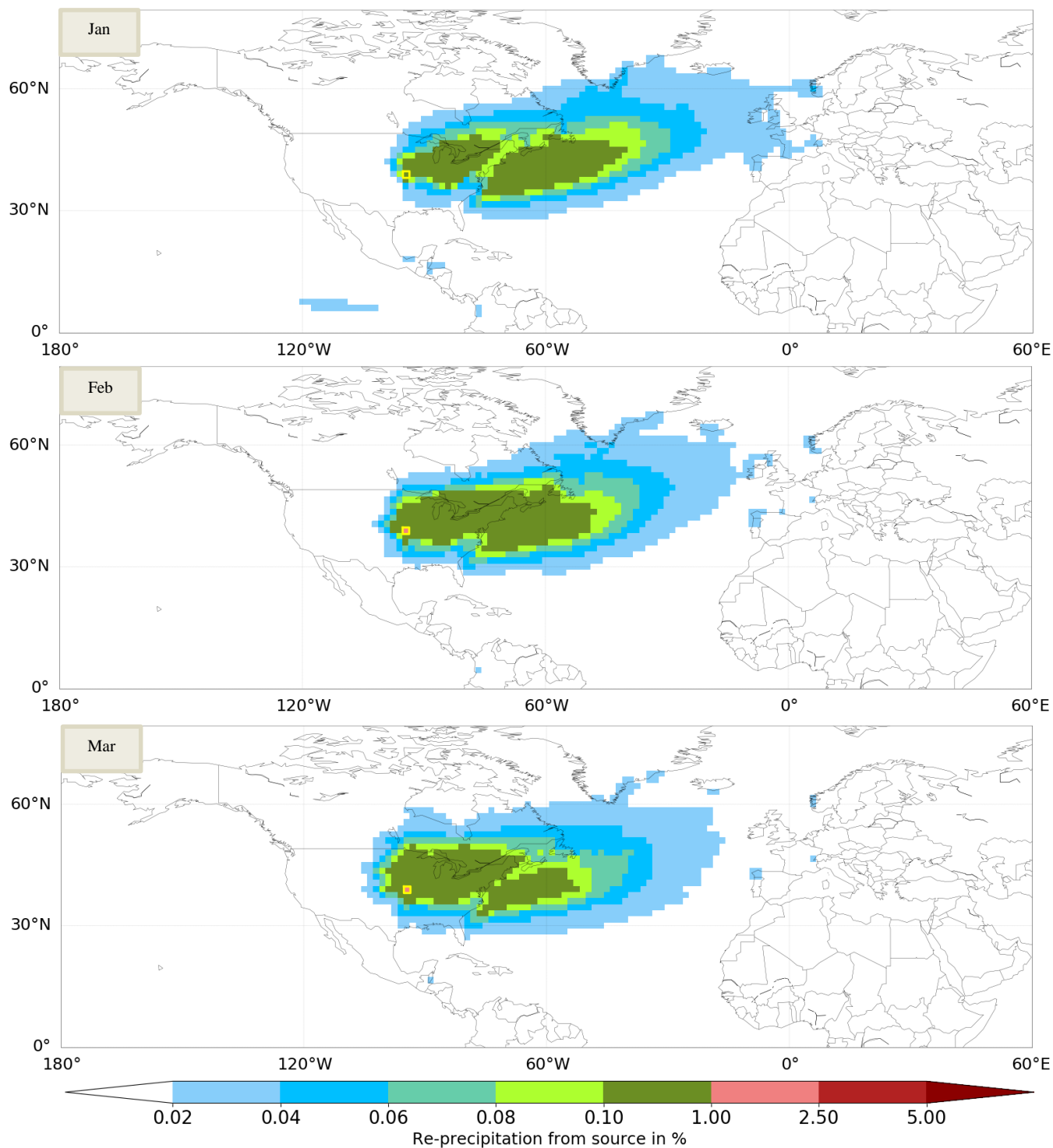
The dataset and the online viewer are accessible under the following URLs:

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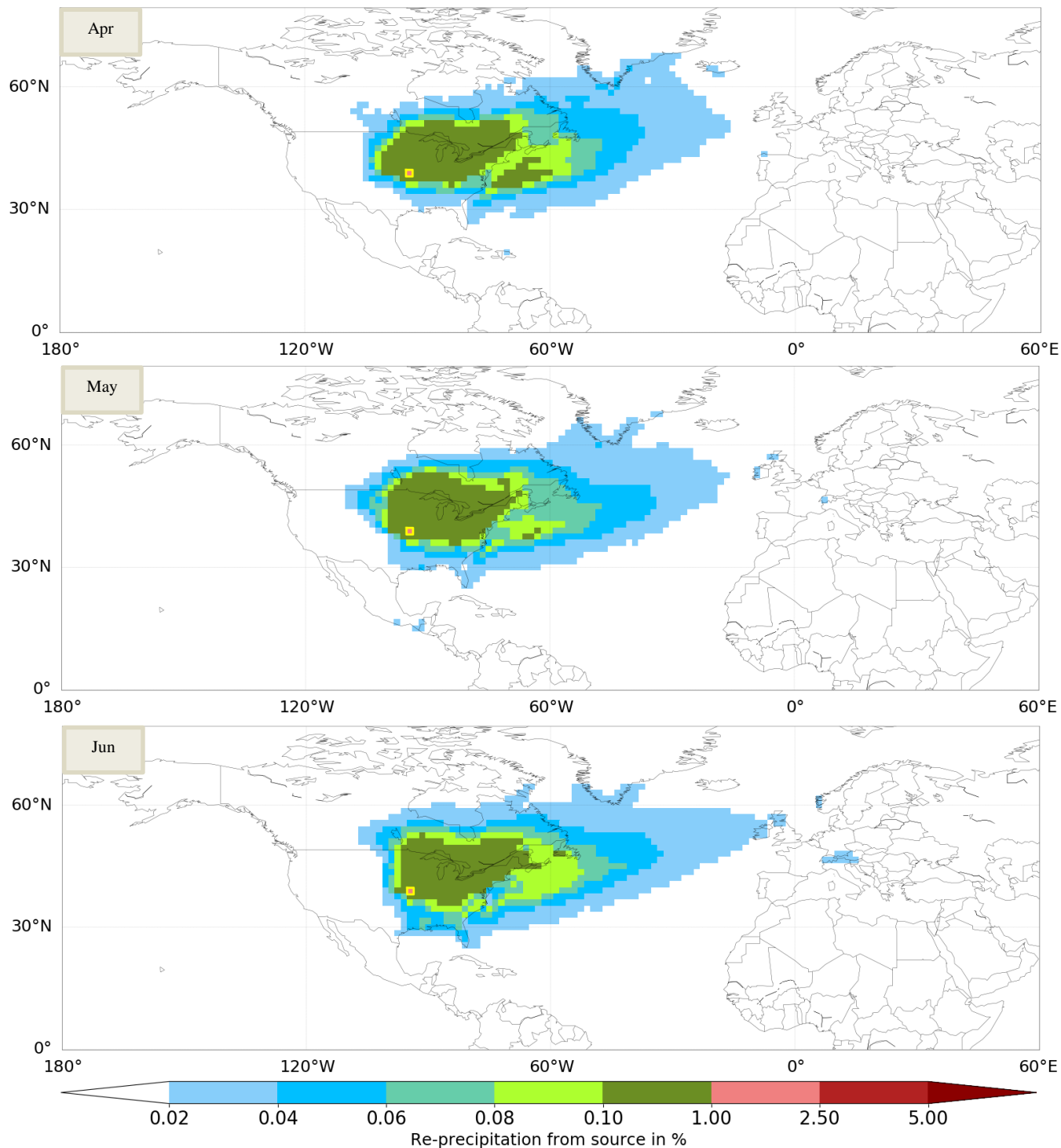
- Dataset: <https://doi.pangaea.de/10.1594/PANGAEA.908705> (Link et al., 2019a)
- Online viewer: <http://wf-tools.see.tu-berlin.de/wf-tools/evaporationshed/#/> (Link et al., 2019b)

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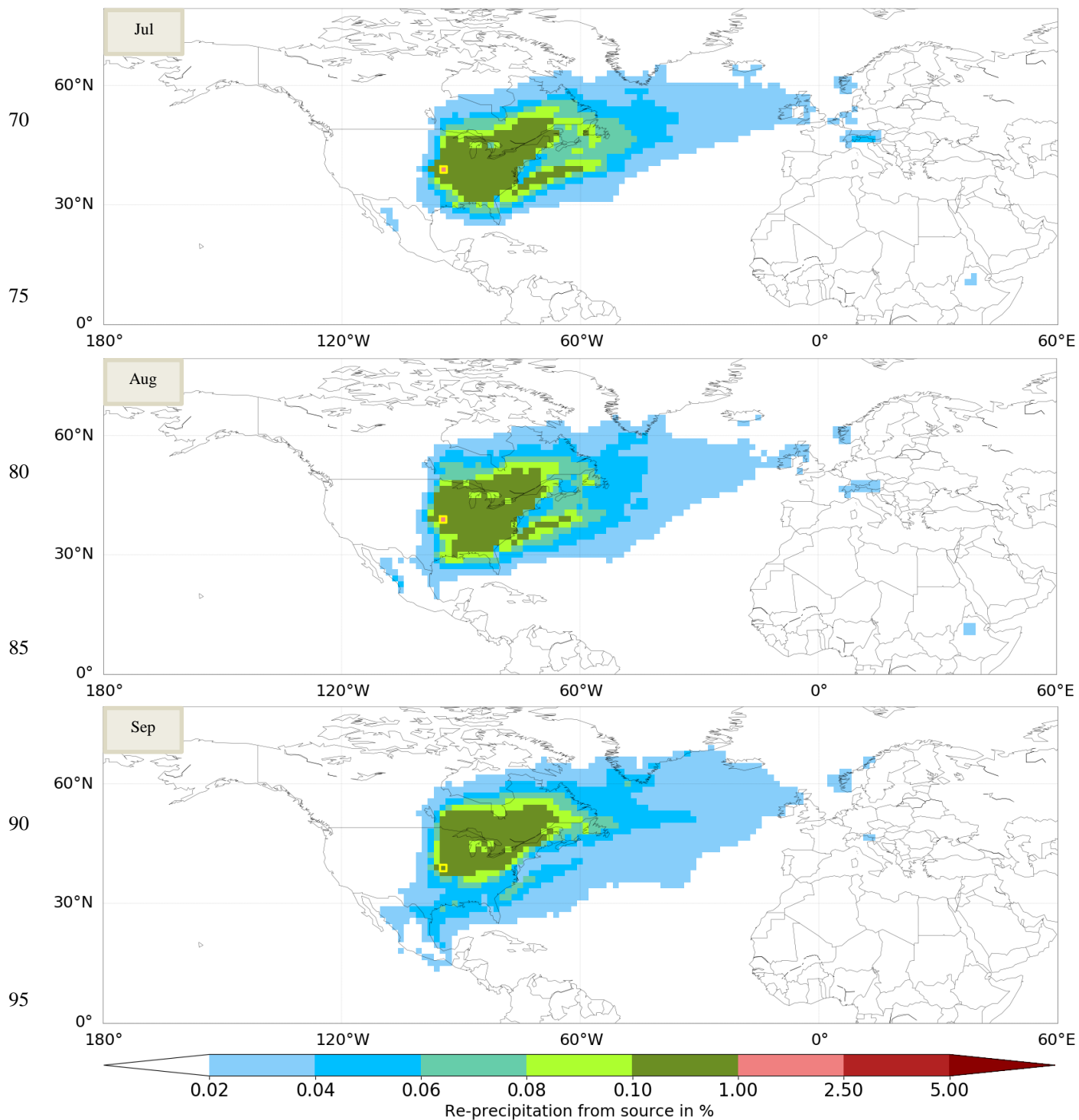
Besides the provision of the supplementary example plots, the SI provides via Table S1 the overall comparison between country results of the 3D quasi-isentropic back-trajectory (3D QIBT) method by Dirmeyer et al. (2009) and the WAM-2layers model (Van der Ent, 2014). In this context, all comparable values for the terrestrial evaporative source (TES – unit: %) as well as the country internal evaporative source (CIES – unit: %) of precipitation are listed.



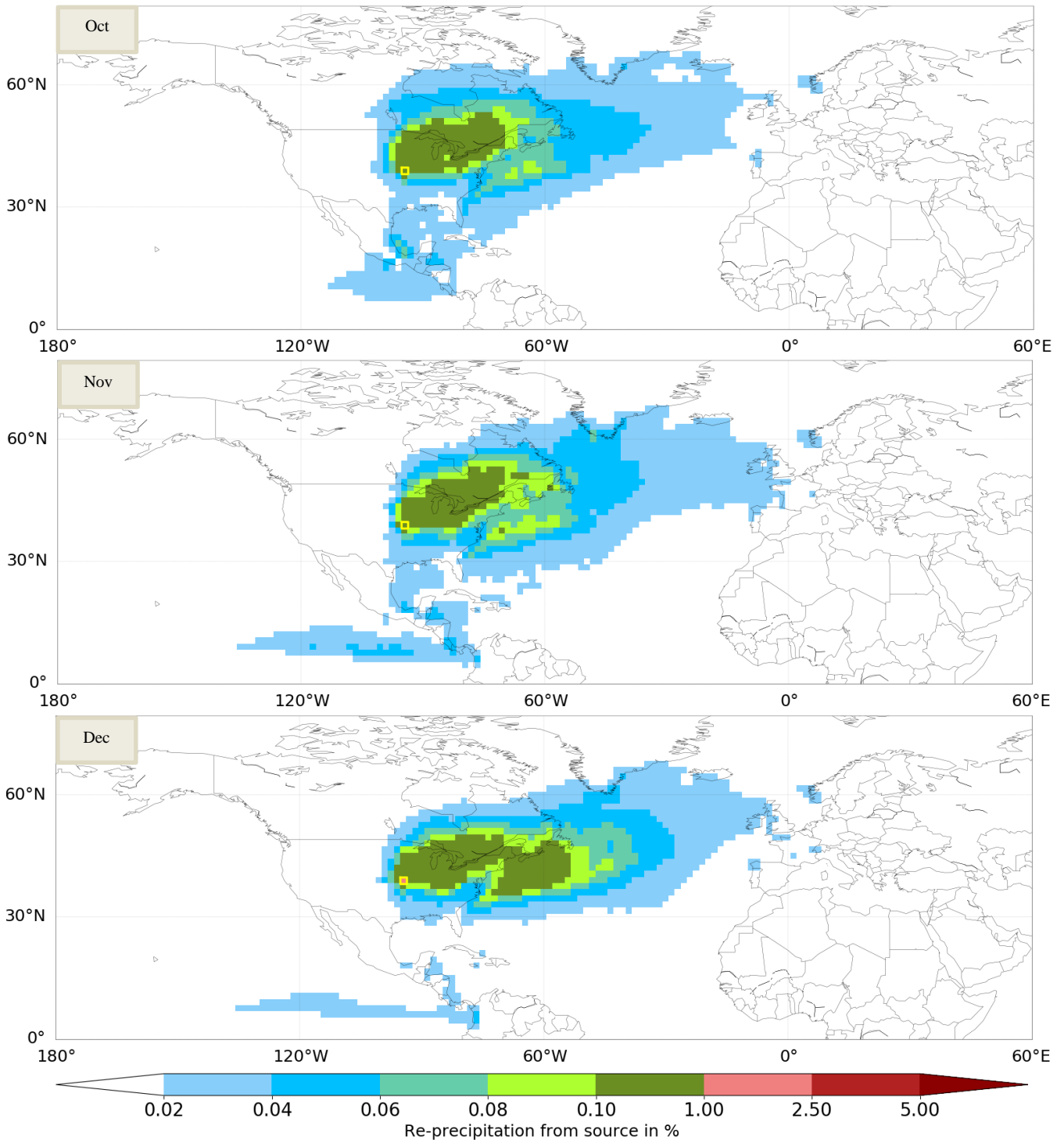
**Figure S1 Monthly evaporation sheds (Jan = January, Feb = February, Mar = March) for the grid cell at 39.0° N latitude & 94.5° W longitude (Kansas City, US),  $E_{input}$  : 16.2 mm/month (Jan) / 23.1 mm/month (Feb) / 50.8 mm/month (Mar), Unassigned : 1.2 % (Jan) / 1.1 % (Feb) / 0.9 % (Mar), Colored area covers 73.8 % (Jan) / 75.5 % (Feb) / 75.4 % (Mar) of the assigned water**



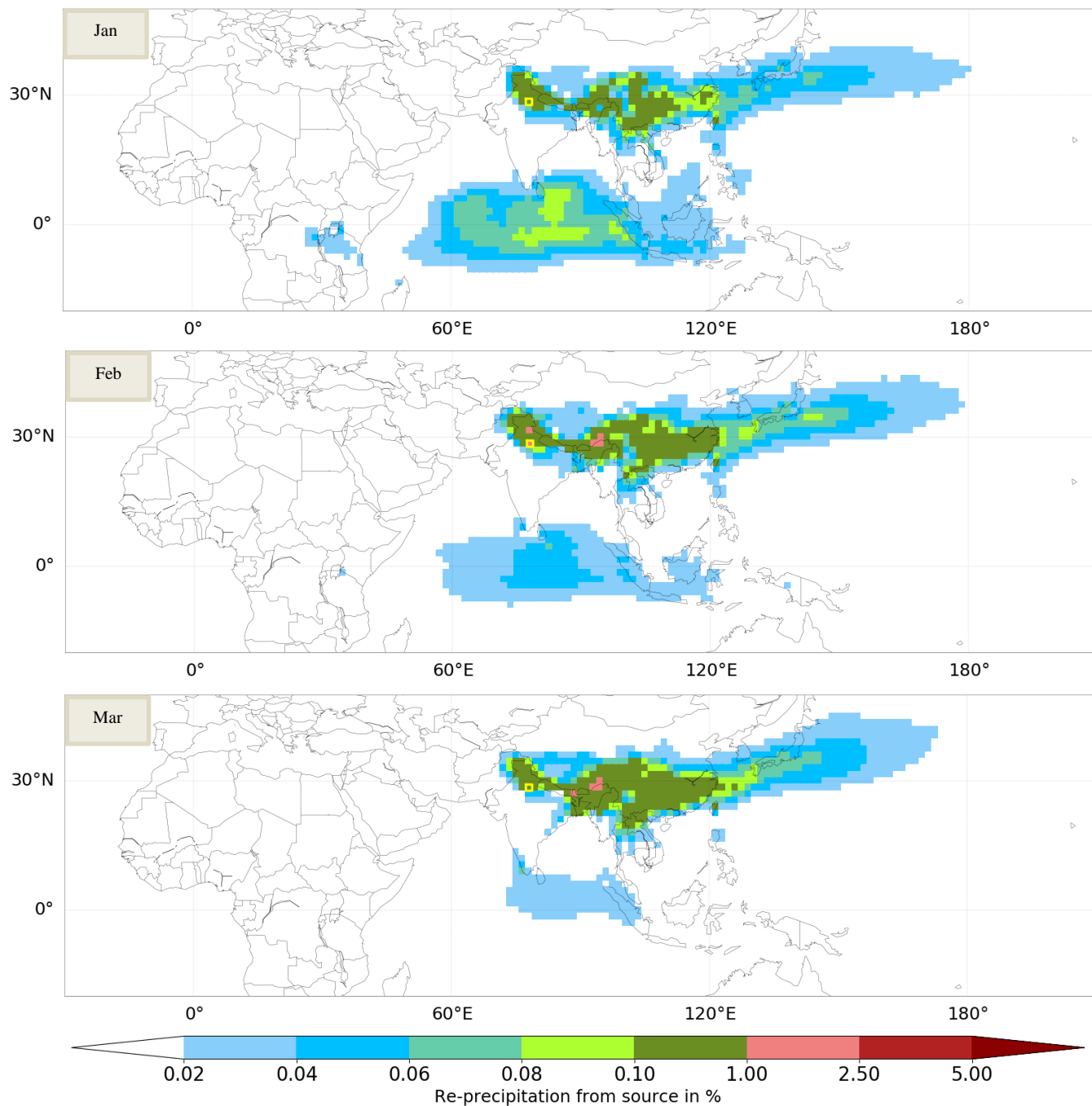
**Figure S2 Monthly evaporationsheds (Apr = April, May, Jun = June) for the grid cell at 39.0° N latitude & 94.5° W longitude (Kansas City, US),  $E_{input}$  : 76.7 mm/month (Apr) / 113.0 mm/month (May) / 137.9 mm/month (Jun), Unassigned : 1.3 % (Apr) / 1.6 % (May) / 2.5 % (Jun), Colored area covers 73.9 % (Apr) / 73.9 % (May) / 74.4 % (Jun) of the assigned water**



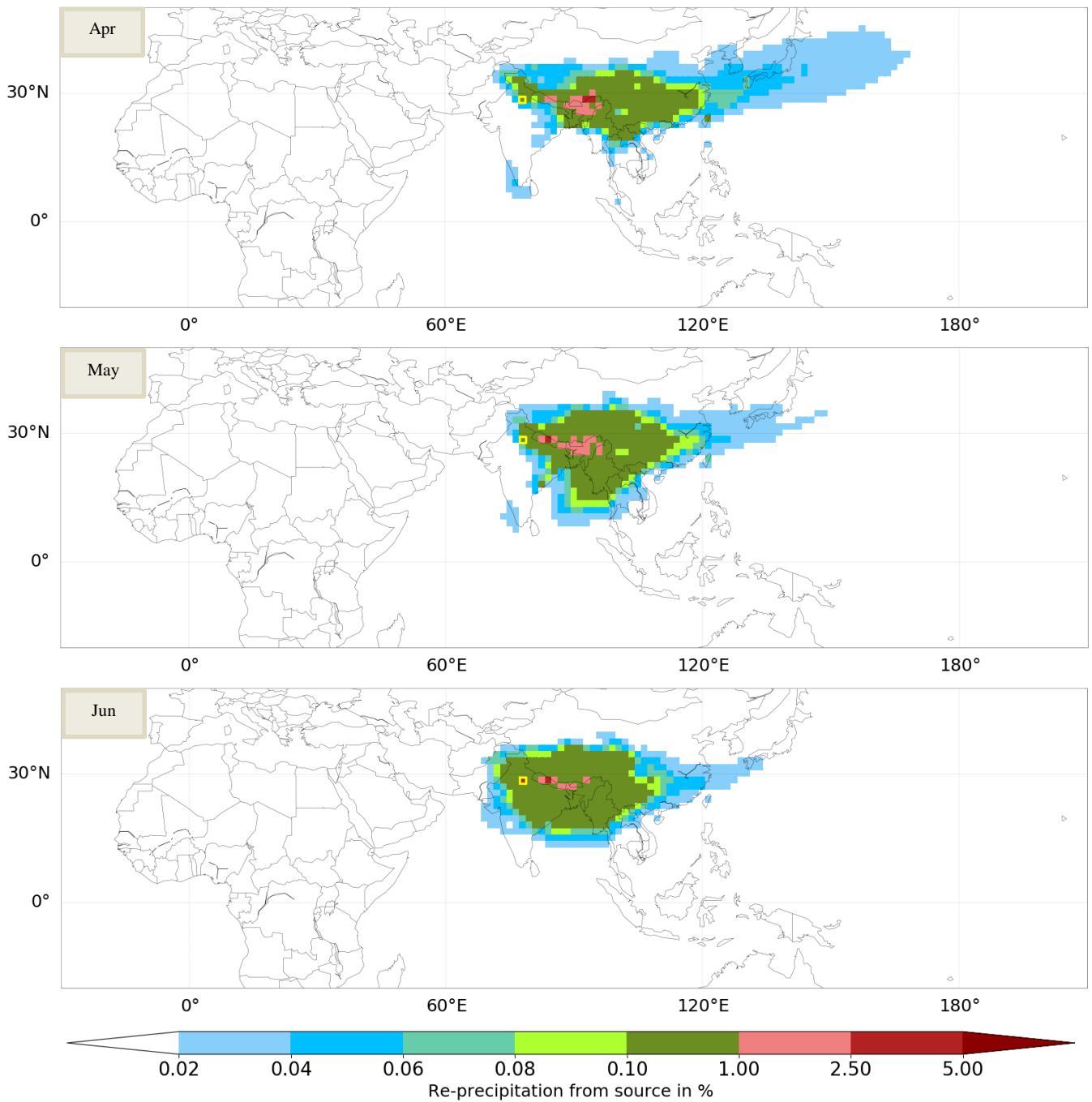
**Figure S3 Monthly evaporation sheds (Jul = July, Aug = August, Sep = September) for the grid cell at 39.0° N latitude & 94.5° W longitude (Kansas City, US),  $E_{input}$  : 144.0 mm/month (Jul) / 121.6 mm/month (Aug) / 87.1 mm/month (Sep), Unassigned : 3.4 % (Jul) / 2.6 % (Aug) / 3.0 % (Sep), Colored area covers 71.0 % (Jul) / 68.9 % (Aug) / 68.9 % (Sep) of the assigned water**



**Figure S4 Monthly evaporation sheds (Oct = October, Nov = November, Dec = December) for the grid cell at 39.0° N latitude & 94.5° W longitude (Kansas City, US),  $E_{input}$  : 54.3 mm/month (Oct) / 30.1 mm/month (Nov) / 16.8 mm/month (Dec), Unassigned : 2.6 % (Oct) / 1.5 % (Nov) / 1.2 % (Dec), Colored area covers 68.3 % (Oct) / 71.1 % (Nov) / 71.1 % (Dec) of the assigned water**

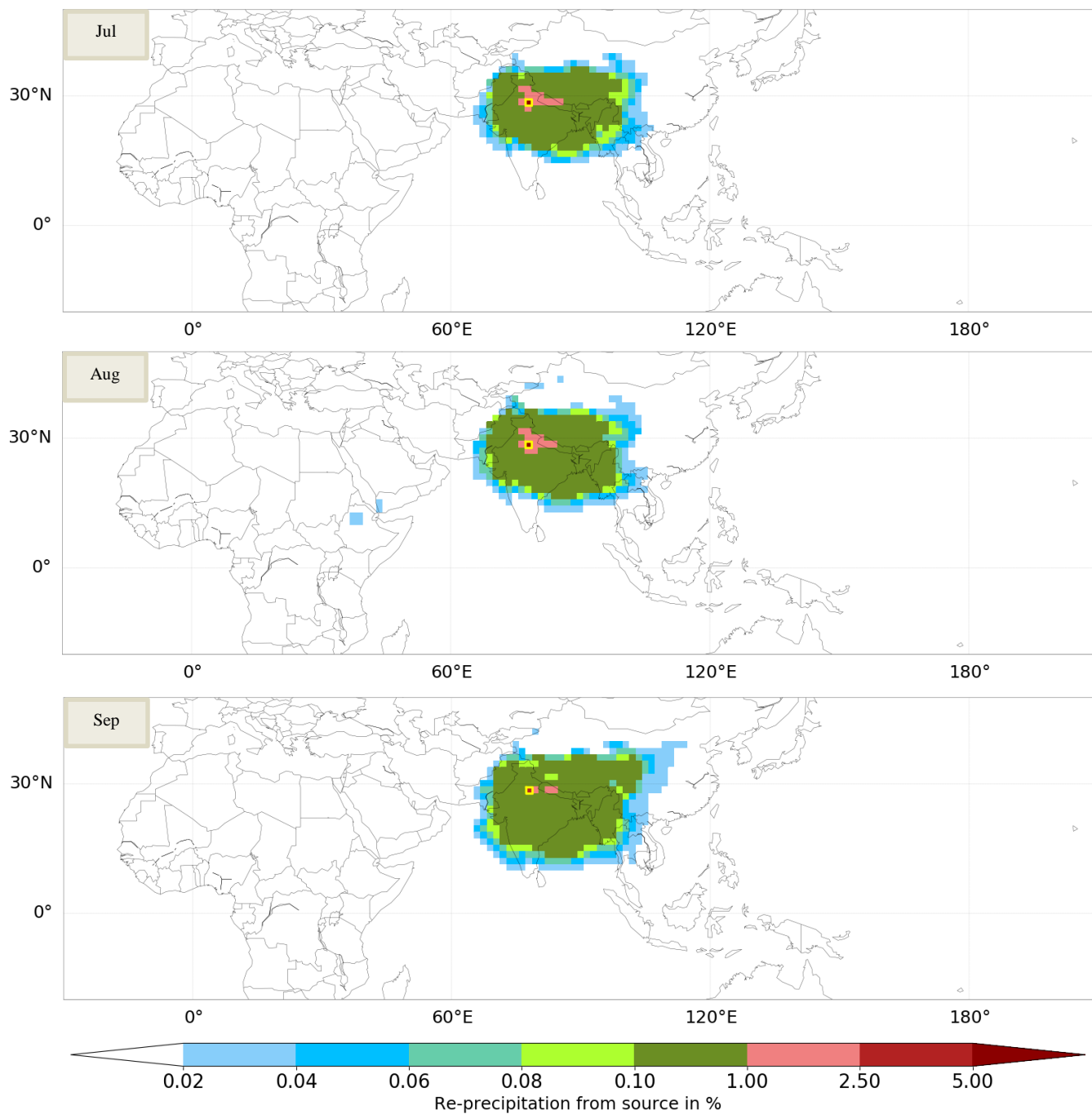


**Figure S5 Monthly evaporation sheds (Jan = January, Feb = February, Mar = March) for the grid cell at 28.5° N latitude & 78.0° E longitude (Delhi, India),  $E_{input}$  : 52.3 mm/month (Jan) / 67.7 mm/month (Feb) / 98.1 mm/month (Mar), Unassigned : 0.1 % (Jan) / 0.1 % (Feb) / 0.2 % (Mar), Colored area covers 72.2 % (Jan) / 72.9 % (Feb) / 75.0 % (Mar) of the assigned water**

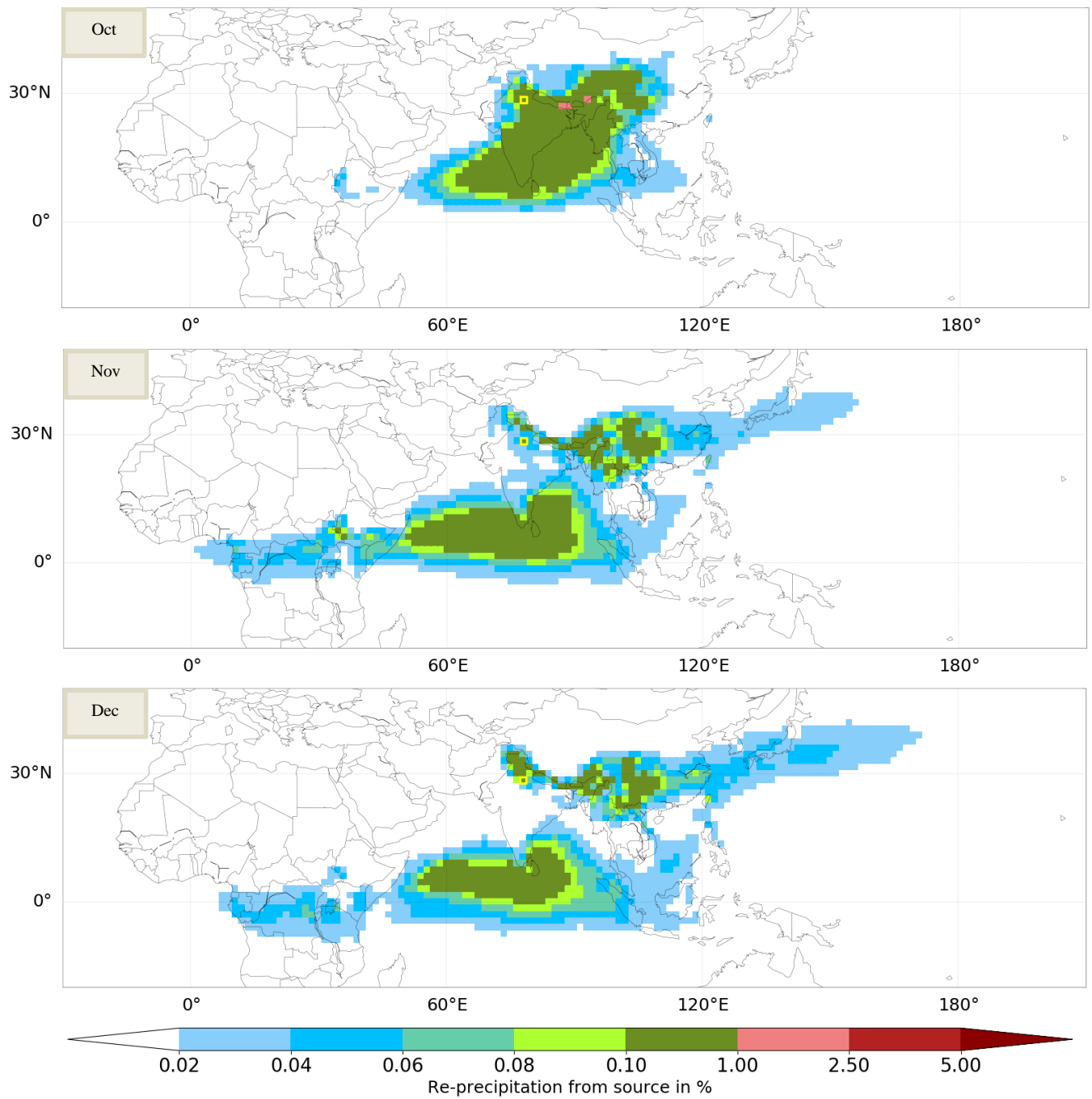


**Figure S6 Monthly evaporationsheds (Apr = April, May, Jun = June) for the grid cell at 28.5° N latitude & 78.0° E longitude (Delhi, India),  $E_{input}$  : 96.4 mm/month (Apr) / 110.5 mm/month (May) / 113.8 mm/month (Jun), Unassigned : 0.2 % (Apr) / 0.3 % (May) / 0.2 % (Jun), Colored area covers 79.4 % (Apr) / 84.4 % (May) / 89.0 % (Jun) of the assigned water**

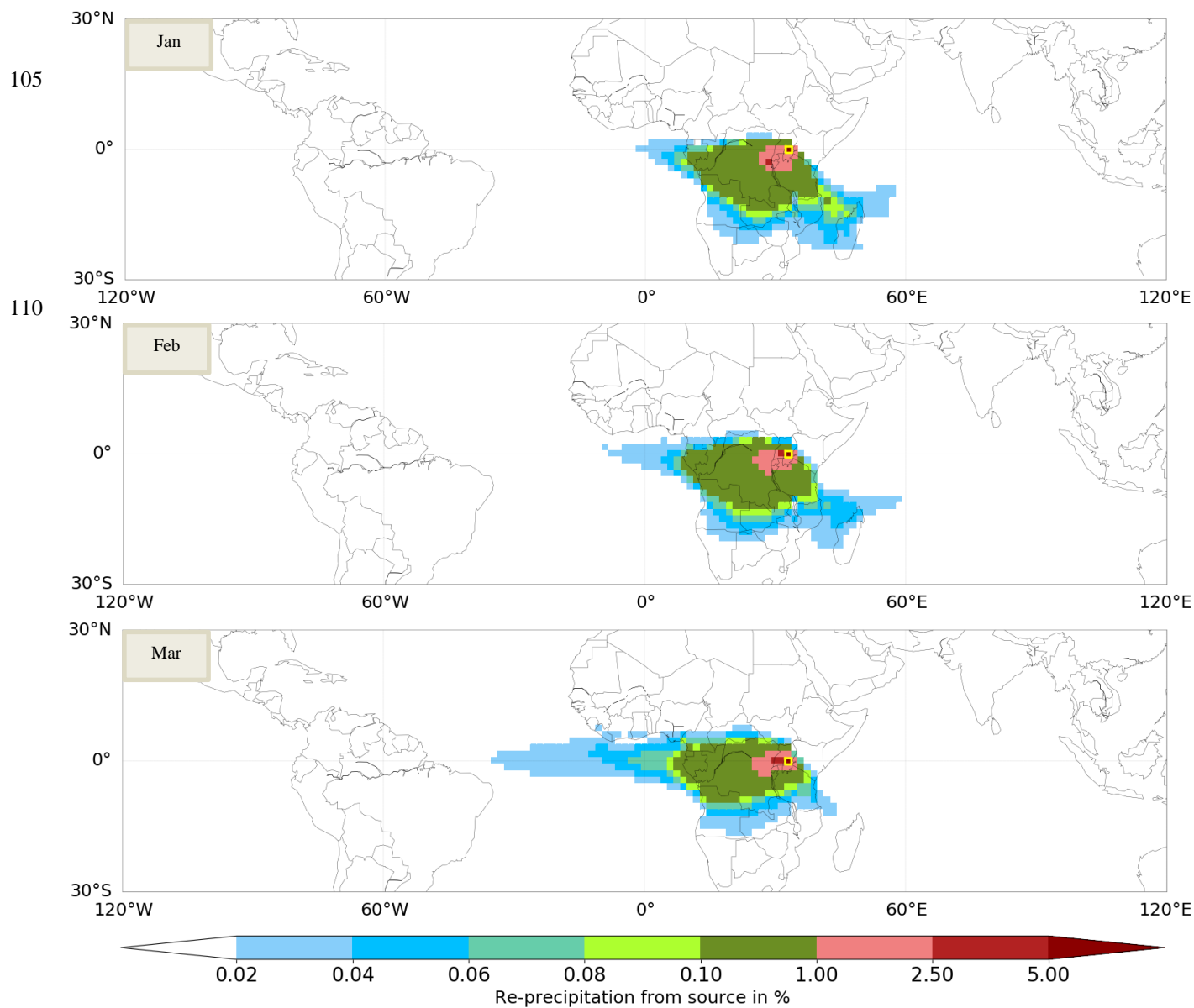




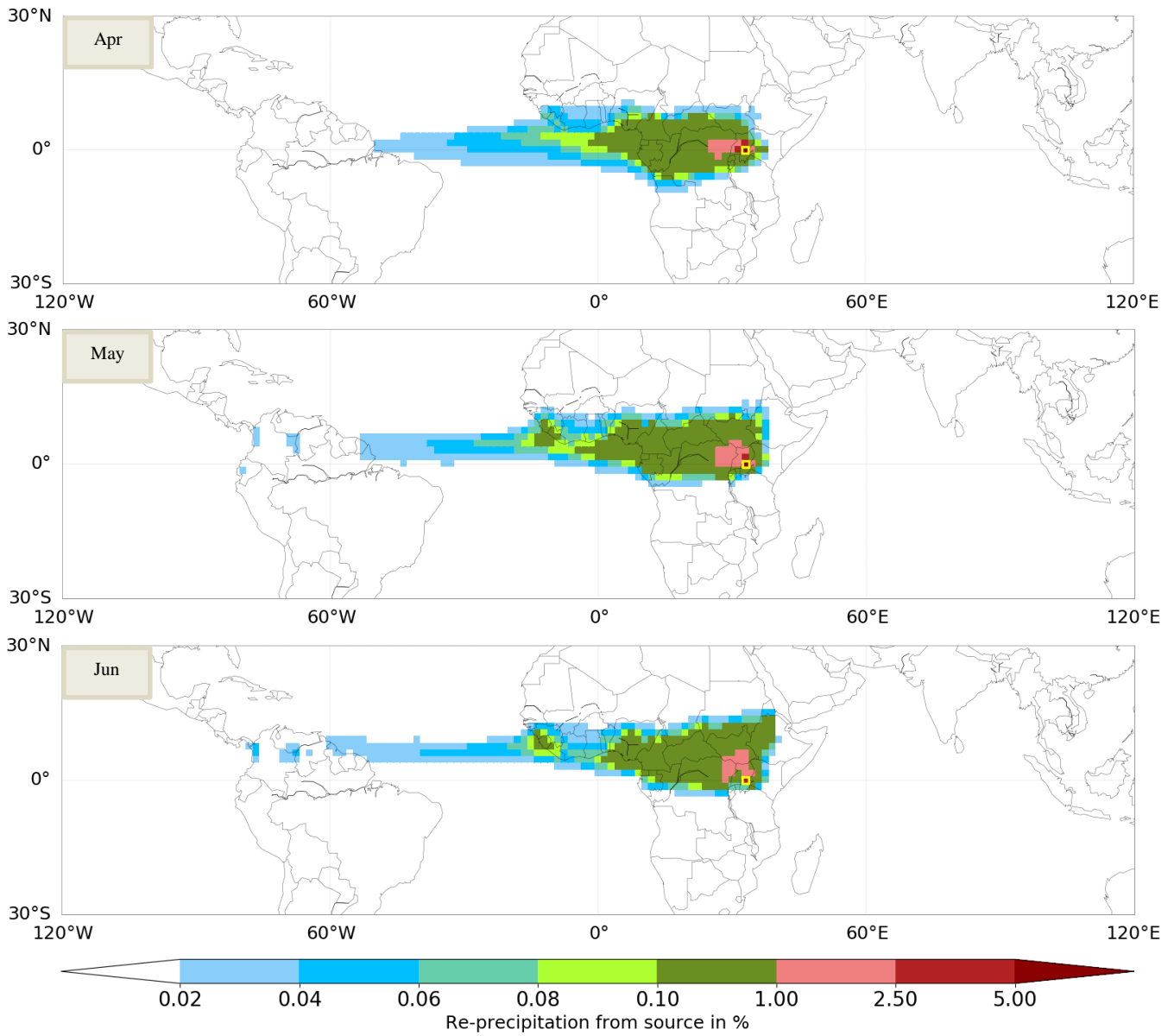
**Figure S7 Monthly evaporationsheds (Jul = July, Aug = August, Sep = September) for the grid cell at 28.5° N latitude & 78.0° E longitude (Delhi, India),  $E_{input}$  : 130.4 mm/month (Jul) / 130.6 mm/month (Aug) / 123.4 mm/month (Sep), Unassigned : 0.2 % (Jul) / 0.1 % (Aug) / 0.1 % (Sep), Colored area covers 93.4 % (Jul) / 93.8 % (Aug) / 91.9 % (Sep) of the assigned water**



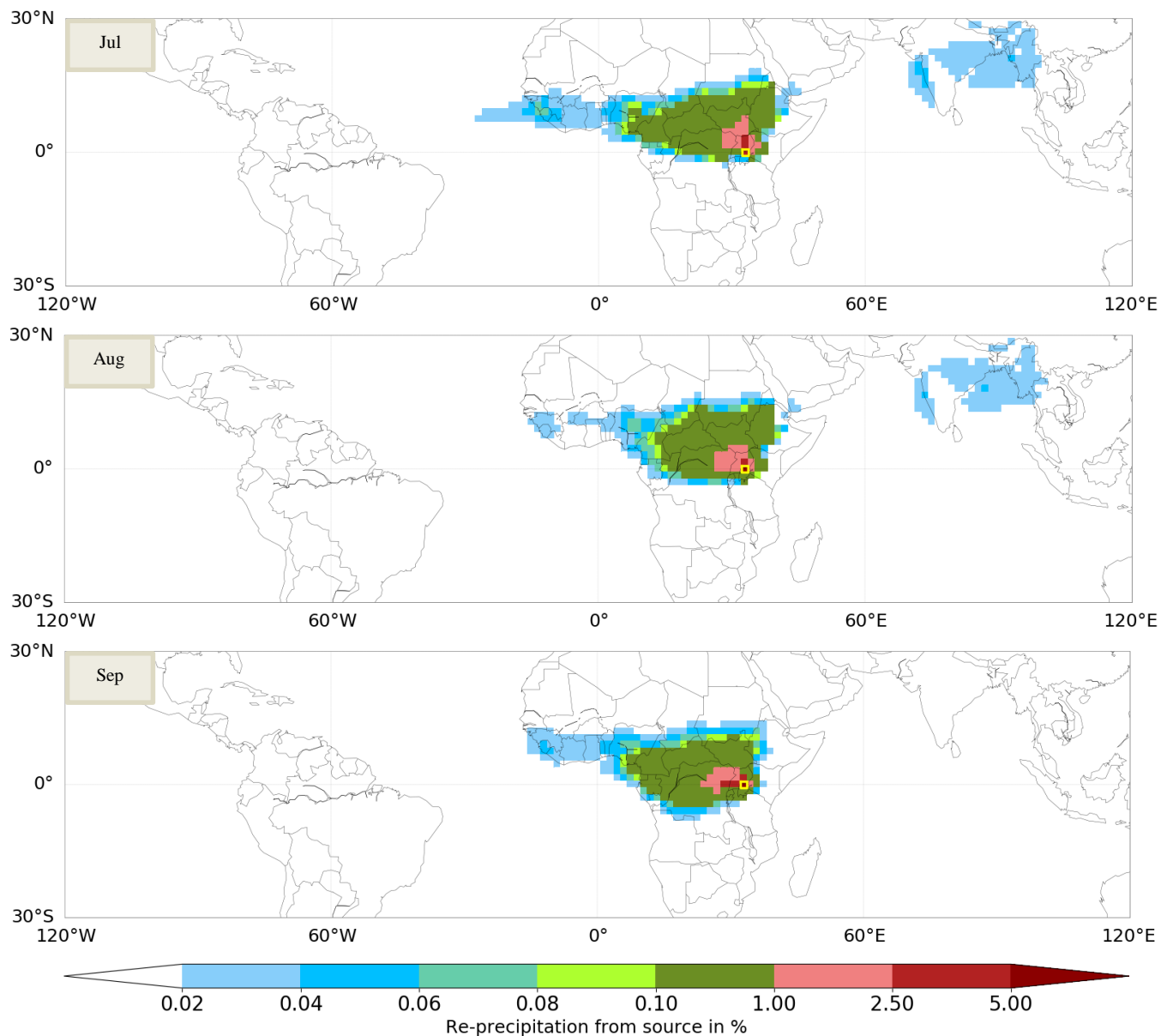
**Figure S8 Monthly evaporationsheds (Oct = October, Nov = November, Dec = December) for the grid cell at 28.5° N latitude & 78.0° E longitude (Delhi, India),  $E_{input}$  : 101.2 mm/month (Oct) / 62.1 mm/month (Nov) / 46.2 mm/month (Dec), Unassigned : 0.1 % (Oct) / 0.1 % (Nov) / 0.1 % (Dec), Colored area covers 85.3 % (Oct) / 78.5 % (Nov) / 74.1 % (Dec) of the assigned water**



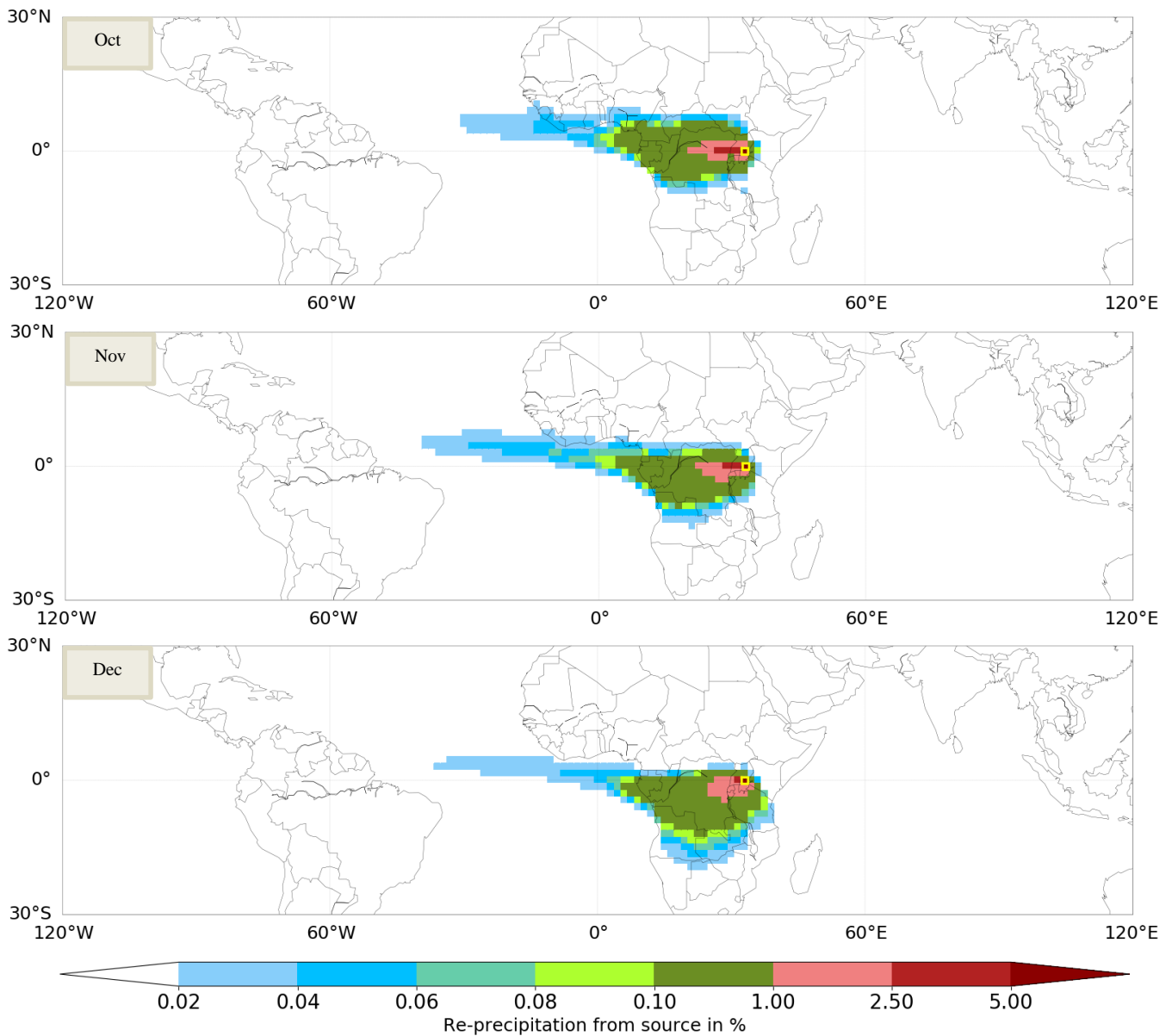
**Figure S9 Monthly evaporationsheds (Jan = January, Feb = February, Mar = March) for the grid cell at 0.0° latitude & 33.0° E longitude (Kampala, Uganda),  $E_{input}$  : 104.5 mm/month (Jan) / 103.5 mm/month (Feb) / 108.9 mm/month (Mar), Unassigned : 0.0 % (Jan) / 0.0 % (Feb) / 0.0 % (Mar), Colored area covers 92.1 % (Jan) / 92.0 % (Feb) / 92.6 % (Mar) of the assigned water**



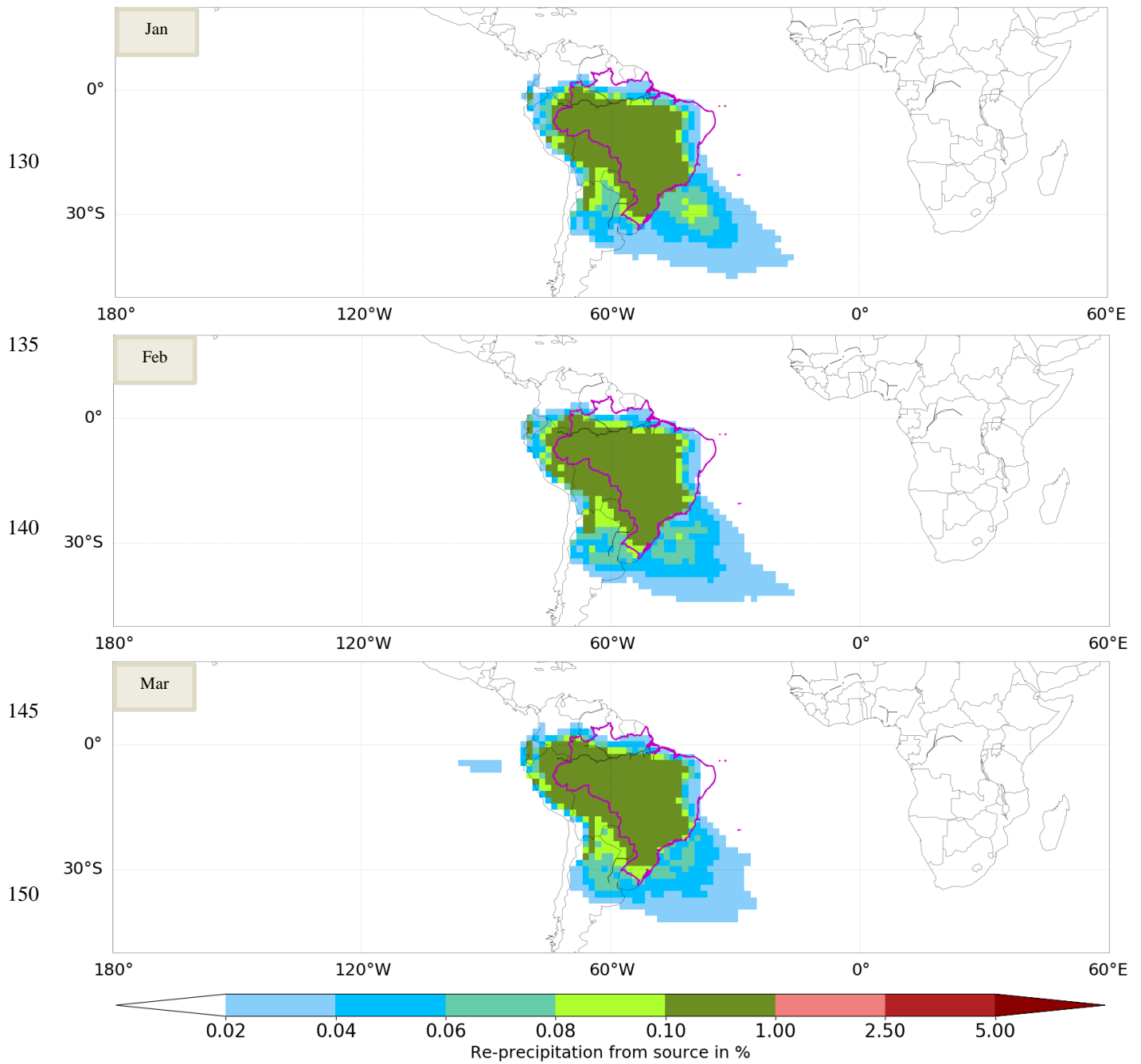
**Figure S10 Monthly evaporationsheds (Apr = April, May, Jun = June) for the grid cell at 0.0° latitude & 33.0° E longitude (Kampala, Uganda),  $E_{input}$  : 93.3 mm/month (Apr) / 92.8 mm/month (May) / 86.8 mm/month (Jun), Unassigned : 0.0 % (Apr) / 0.0 % (May) / 0.0 % (Jun), Colored area covers 93.8 % (Apr) / 92.1 % (May) / 89.4 % (Jun) of the assigned water**



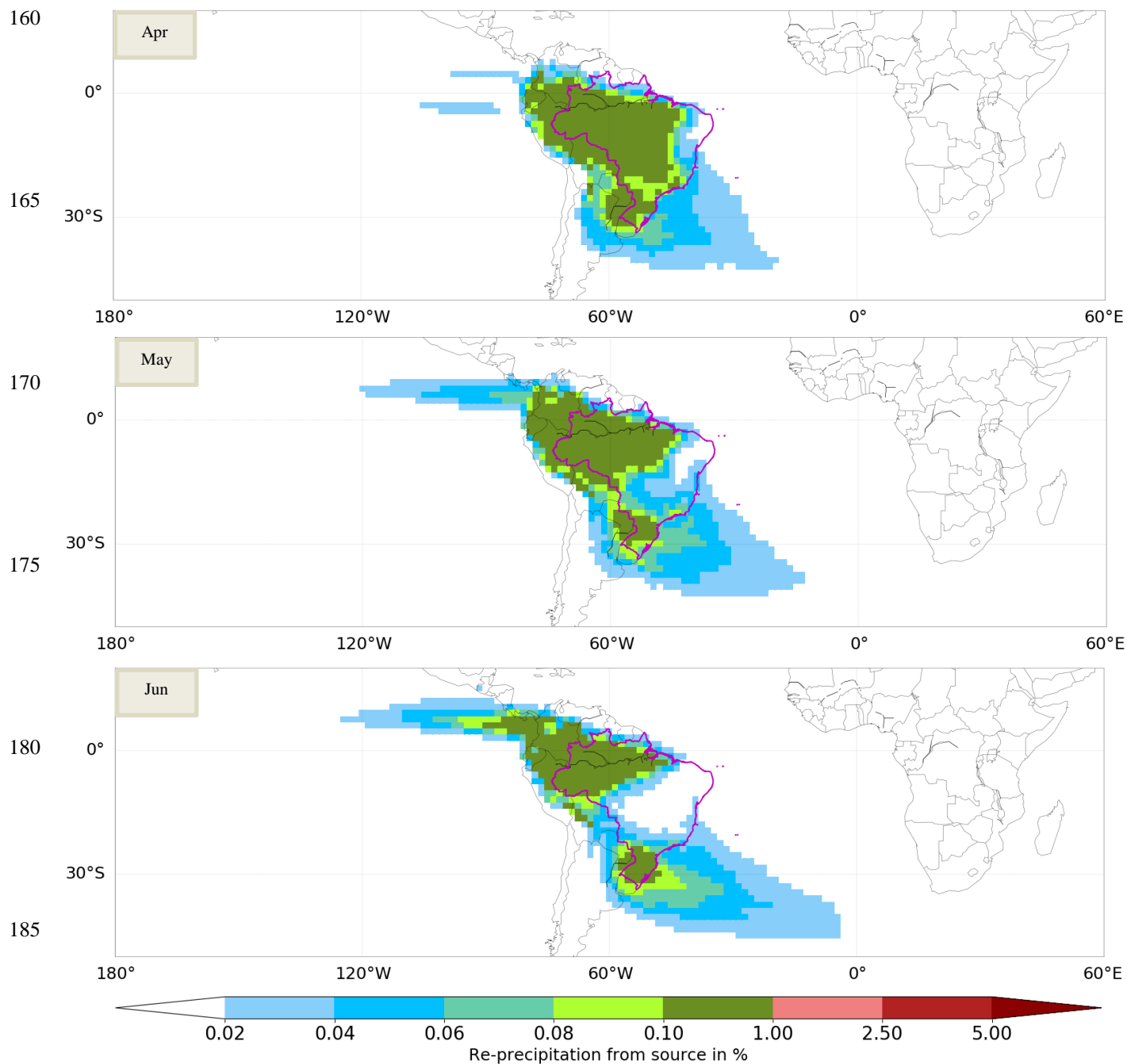
**Figure S11 Monthly evaporation sheds (Jul = July, Aug = August, Sep = September) for the grid cell at 0.0° latitude & 33.0° E longitude (Kampala, Uganda),  $E_{input}$  : 87.7 mm/month (Jul) / 88.0 mm/month (Aug) / 93.9 mm/month (Sep), Unassigned : 0.0 % (Jul) / 0.0 % (Aug) / 0.0 % (Sep), Colored area covers 88.6 % (Jul) / 89.3 % (Aug) / 92.6 % (Sep) of the assigned water**



**Figure S12 Monthly evaporationsheds (Oct = October, Nov = November, Dec = December) for the grid cell at 0° latitude & 33.0° E longitude (Kampala, Uganda),  $E_{input}$  : 97.4 mm/month (Oct) / 92.8 mm/month (Nov) / 95.5 mm/month (Dec), Unassigned : 0.0 % (Oct) / 0.0 % (Nov) / 0.0 % (Dec), Colored area covers 94.2 % (Oct) / 94.2 % (Nov) / 93.1 % (Dec) of the assigned water**

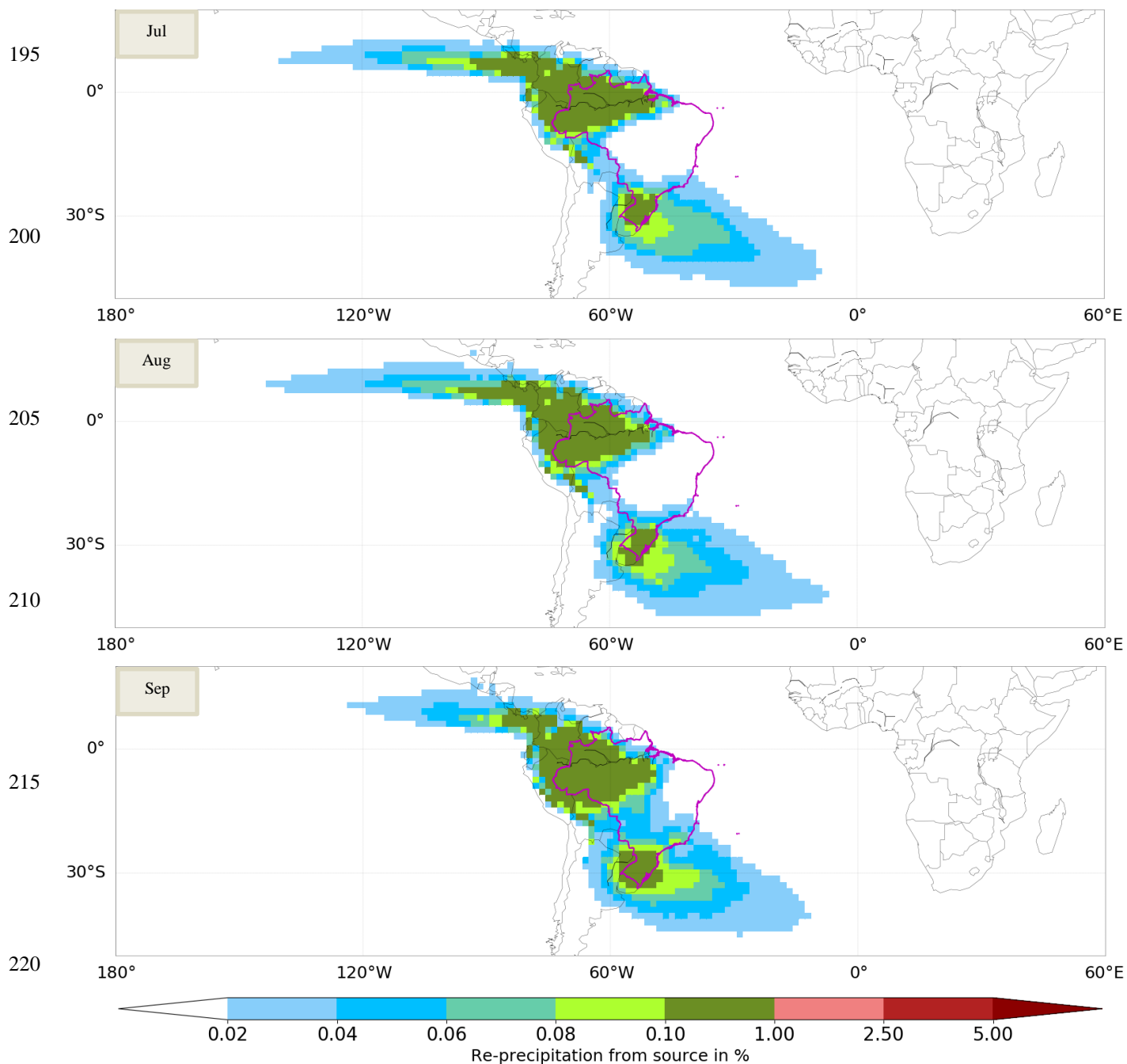


155 **Figure S13 Monthly evaporationsheds (Jan = January, Feb = February, Mar = March) for Brazil ,  $E_{input}$  : 118.3 mm/month (Jan) / 107.7 mm/month (Feb) / 115.1 mm/month (Mar), Unassigned : 0.1 % (Jan) / 0.1 % (Feb) / 0.1 % (Mar), Colored area covers 82.9 % (Jan) / 83.4 % (Feb) / 83.9 % (Mar) of the assigned water**



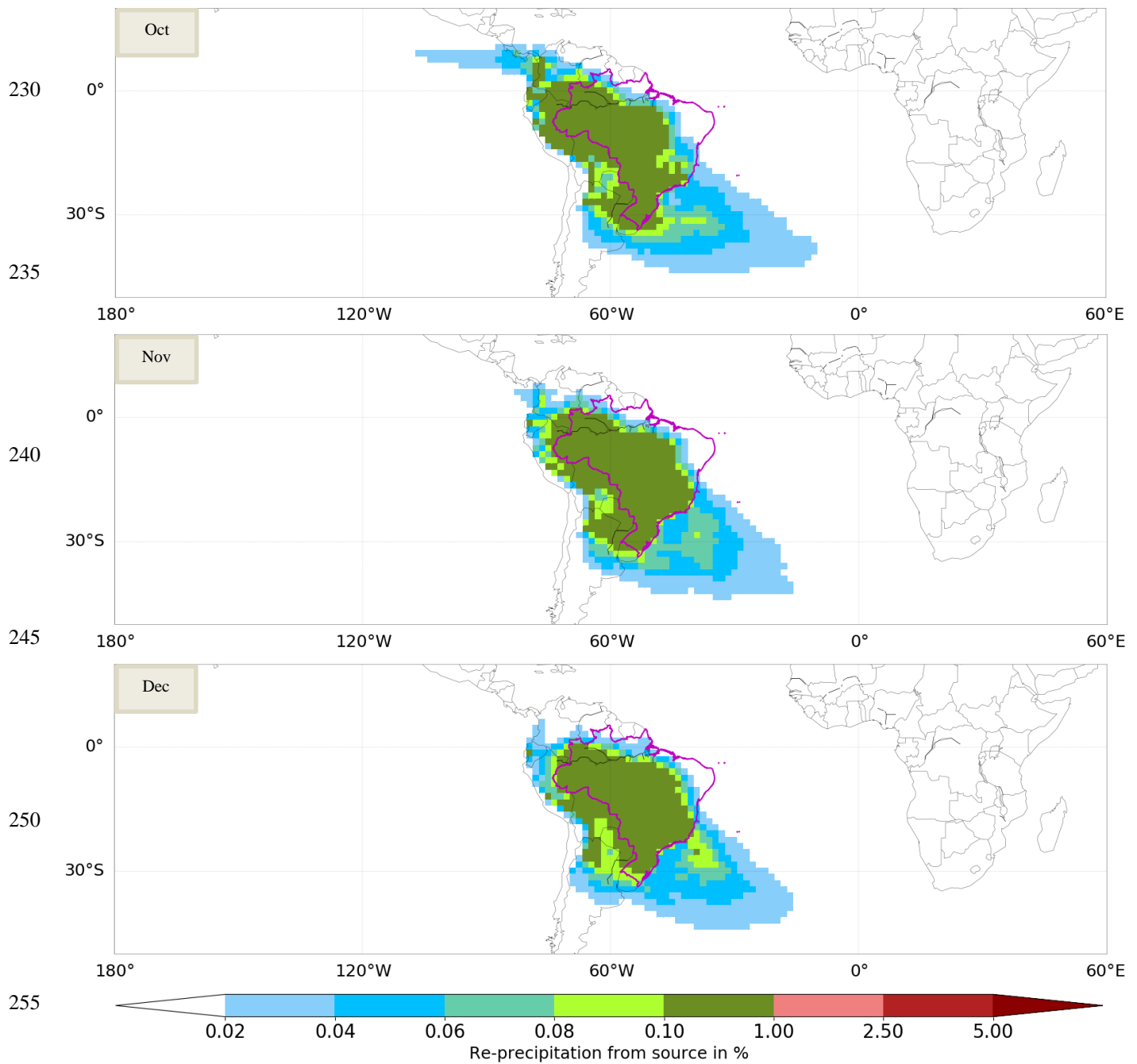
190 **Figure S14 Monthly evaporationsheds (Apr = April, May, Jun = June) for Brazil ,  $E_{input}$  : 102.5 mm/month (Apr) / 94.2 mm/month (May) / 85.3 mm/month (Jun), Unassigned : 0.1 % (Apr) / 0.0 % (May) / 0.1 % (Jun), Colored area covers 82.9 % (Apr) / 81.9 % (May) / 78.7 % (Jun) of the assigned water**





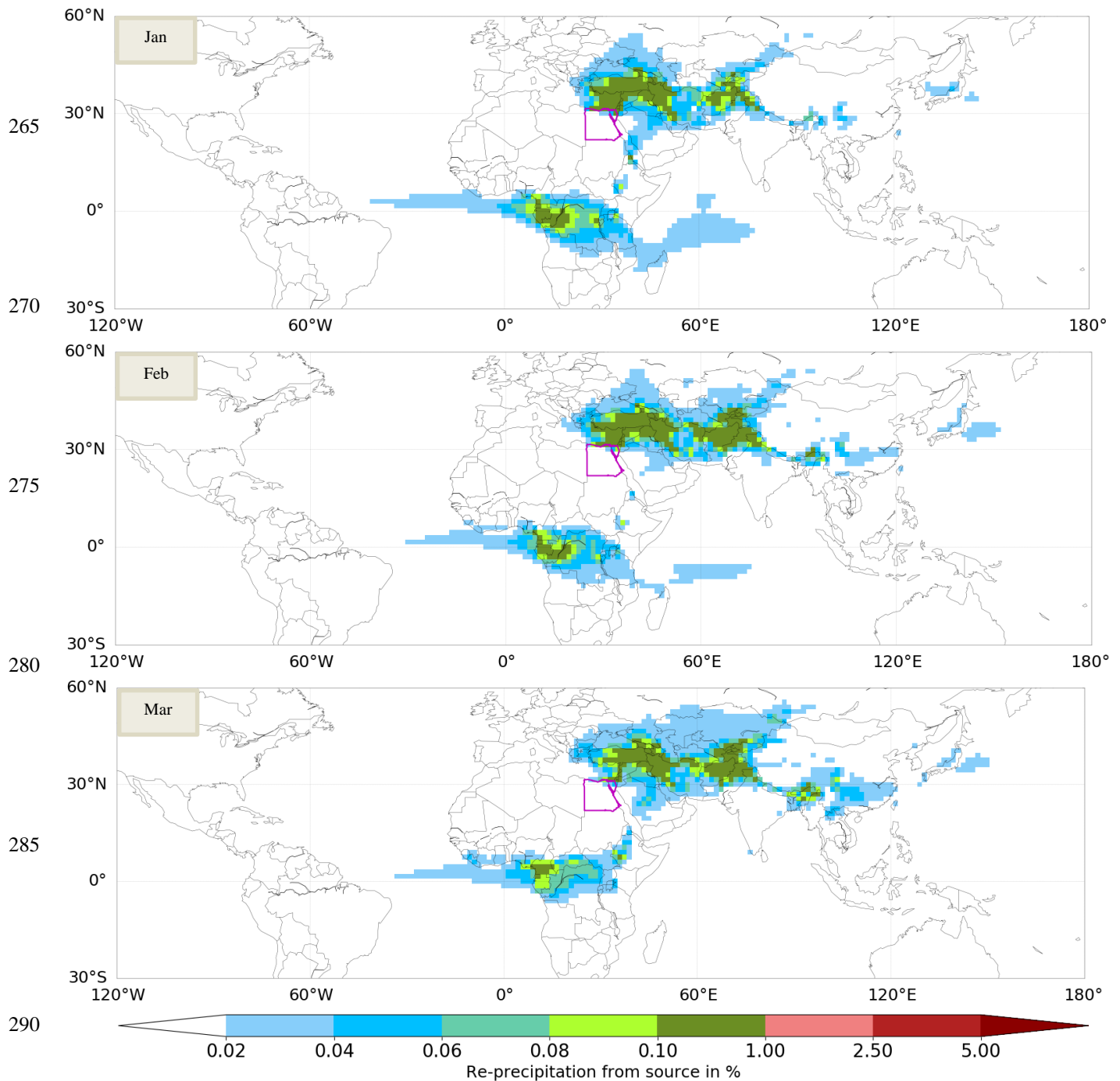
**Figure S15 Monthly evaporationsheds (Jul = July, Aug = August, Sep = September) for Brazil ,  $E_{input}$  : 86.2 mm/month (Jul) / 90.8 mm/month (Aug) / 97.0 mm/month (Sep), Unassigned : 0.1 % (Jul) / 0.1 % (Aug) / 0.1 % (Sep), Colored area covers 76.8 % (Jul) / 77.0 % (Aug) / 78.7 % (Sep) of the assigned water**

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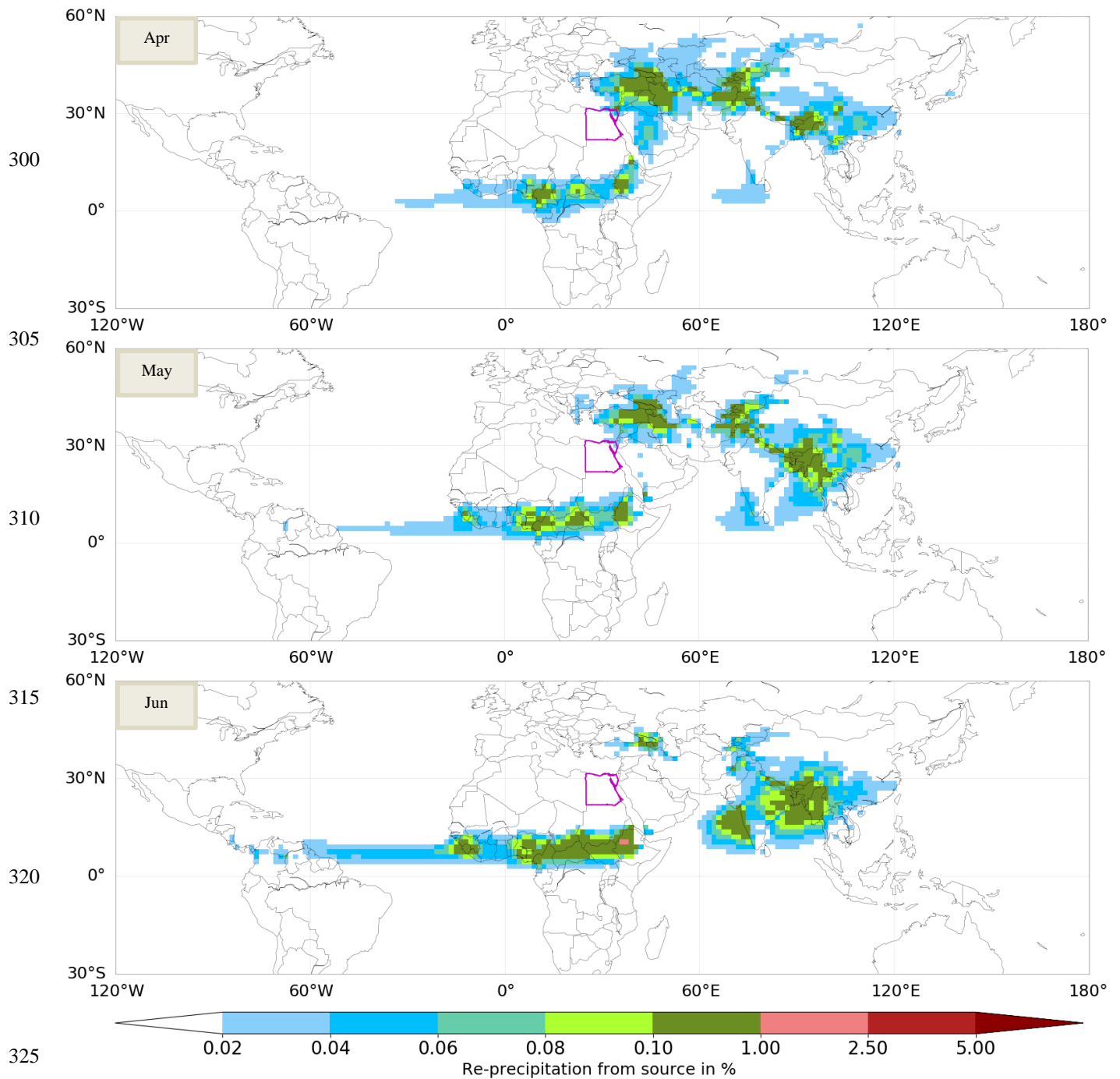
**Figure S16 Monthly evaporation sheds (Oct = October, Nov = November, Dec = December) for Brazil,  $E_{input}$  : 113.1 mm/month (Oct) / 115.3 mm/month (Nov) / 114.6 mm/month (Dec), Unassigned : 0.1 % (Oct) / 0.1 % (Nov) / 0.1 % (Dec), Colored area covers 81.2 % (Oct) / 83.9 % (Nov) / 84.3 % (Dec) of the assigned water**

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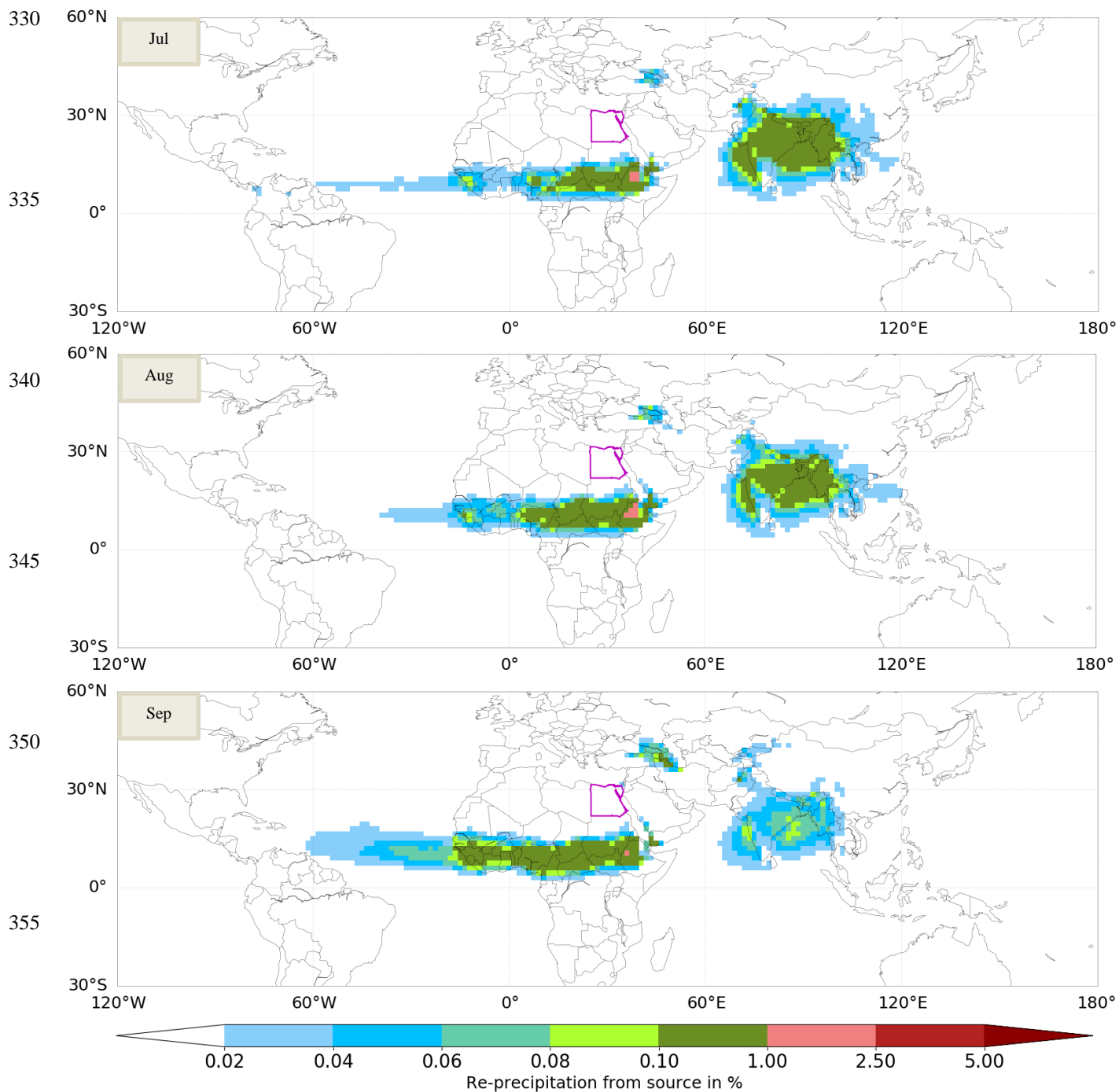


**Figure S17 Monthly evaporationsheds (Jan = January, Feb = February, Mar = March) for Egypt ,  $E_{input}$  : 9.4 mm/month (Jan) / 7.9 mm/month (Feb) / 7.9 mm/month (Mar), Unassigned : 1.1 % (Jan) / 0.8 % (Feb) / 1.2 % (Mar), Colored area covers 61.6 % (Jan) / 61.3 % (Feb) / 62.2 % (Mar) of the assigned water**

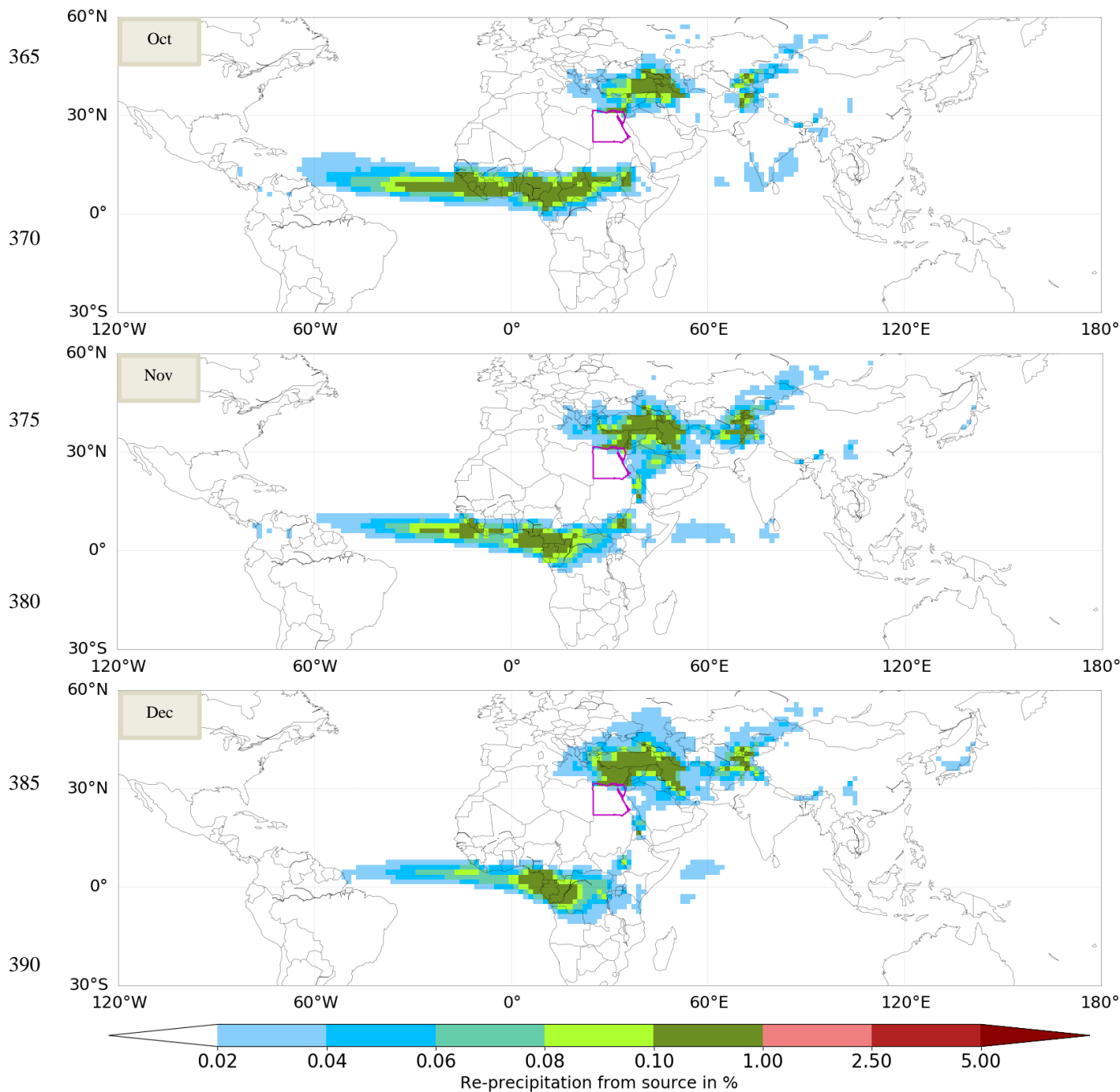
295



**Figure S18 Monthly evaporationsheds (Apr = April, May, Jun = June) for Egypt ,  $E_{input}$  : 7.3 mm/month (Apr) / 7.6 mm/month (May) / 7.9 mm/month (Jun), Unassigned : 1.1 % (Apr) / 0.9 % (May) / 0.8 % (Jun), Colored area covers 62.6 % (Apr) / 65.0 % (May) / 75.2 % (Jun) of the assigned water**



360 **Figure S19 Monthly evaporationsheds (Jul = July, Aug = August, Sep = September) for Egypt ,  $E_{input}$  : 8.9 mm/month (Jul) / 9.5 mm/month (Aug) / 9.6 mm/month (Sep), Unassigned : 0.3 % (Jul) / 0.3 % (Aug) / 0.5 % (Sep), Colored area covers 80.2 % (Jul) / 80.3 % (Aug) / 74.1 % (Sep) of the assigned water**



395 **Figure S20 Monthly evaporationsheds (Oct = October, Nov = November, Dec = December) for Egypt ,  $E_{input}$  : 9.5 mm/month (Oct) / 9.2 mm/month (Nov) / 9.5 mm/month (Dec), Unassigned : 0.9 % (Oct) / 1.0 % (Nov) / 1.0 % (Dec), Colored area covers 58.5 % (Oct) / 59.1 % (Nov) / 62.1 % (Dec) of the assigned water**

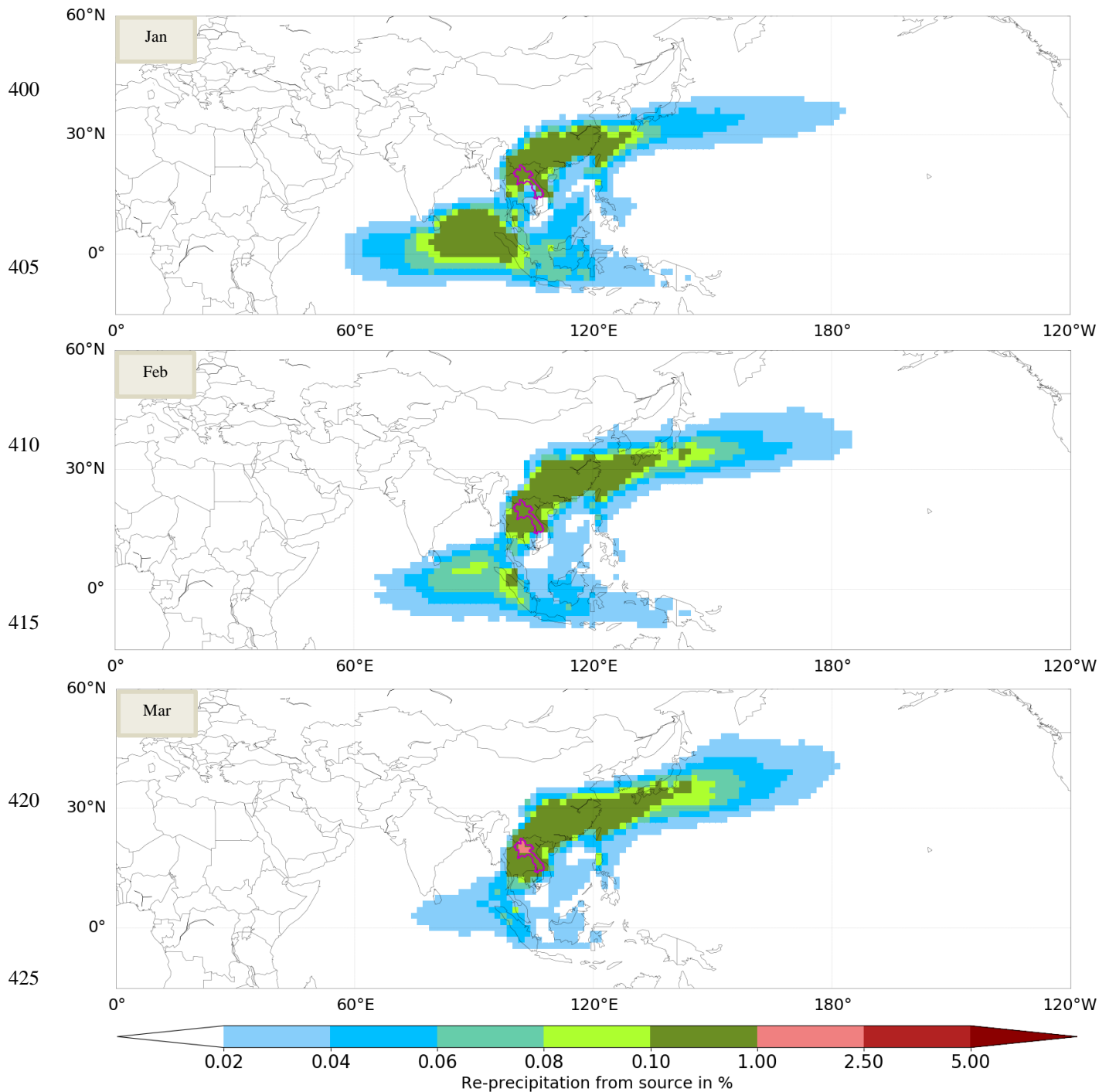
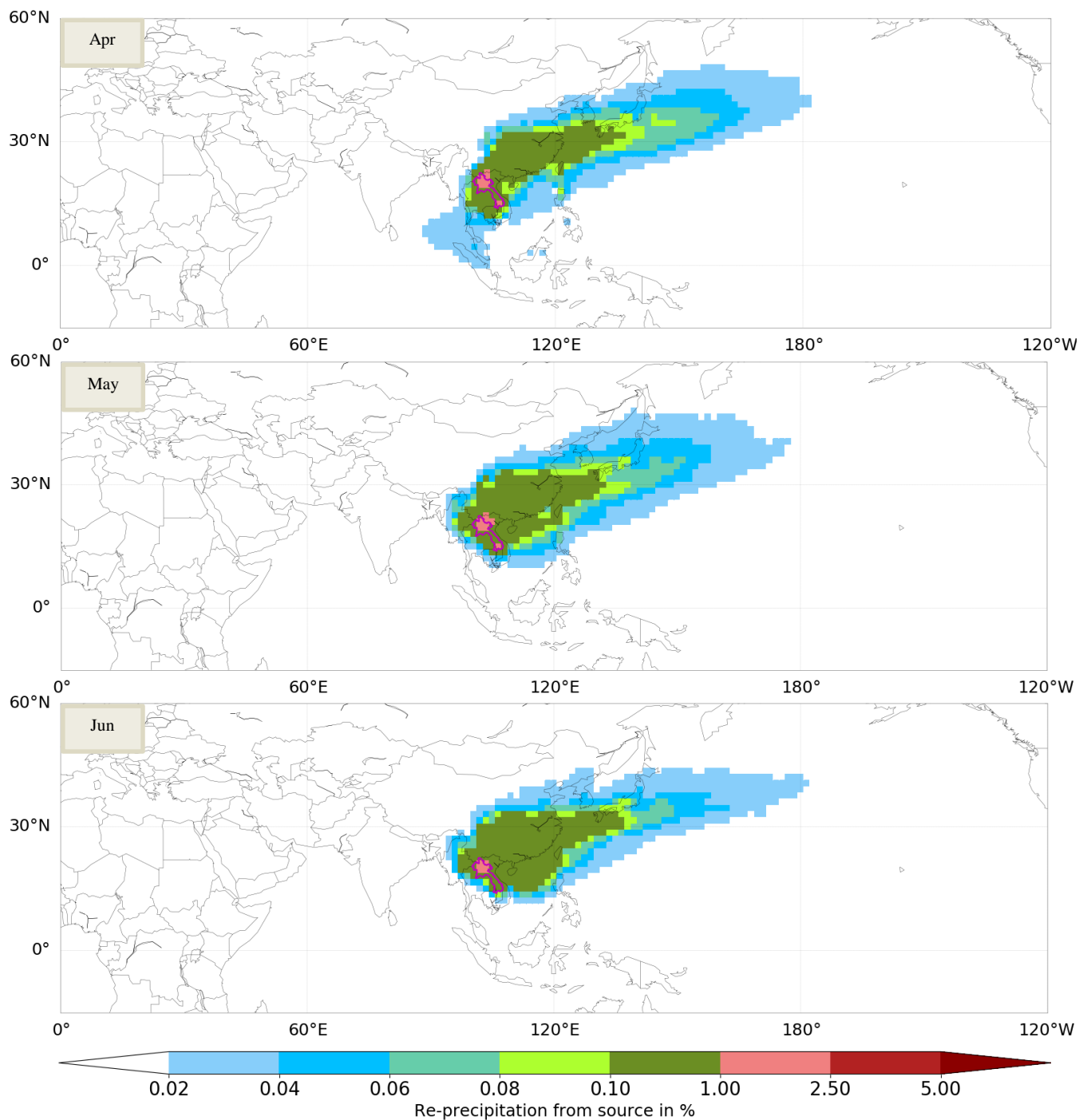
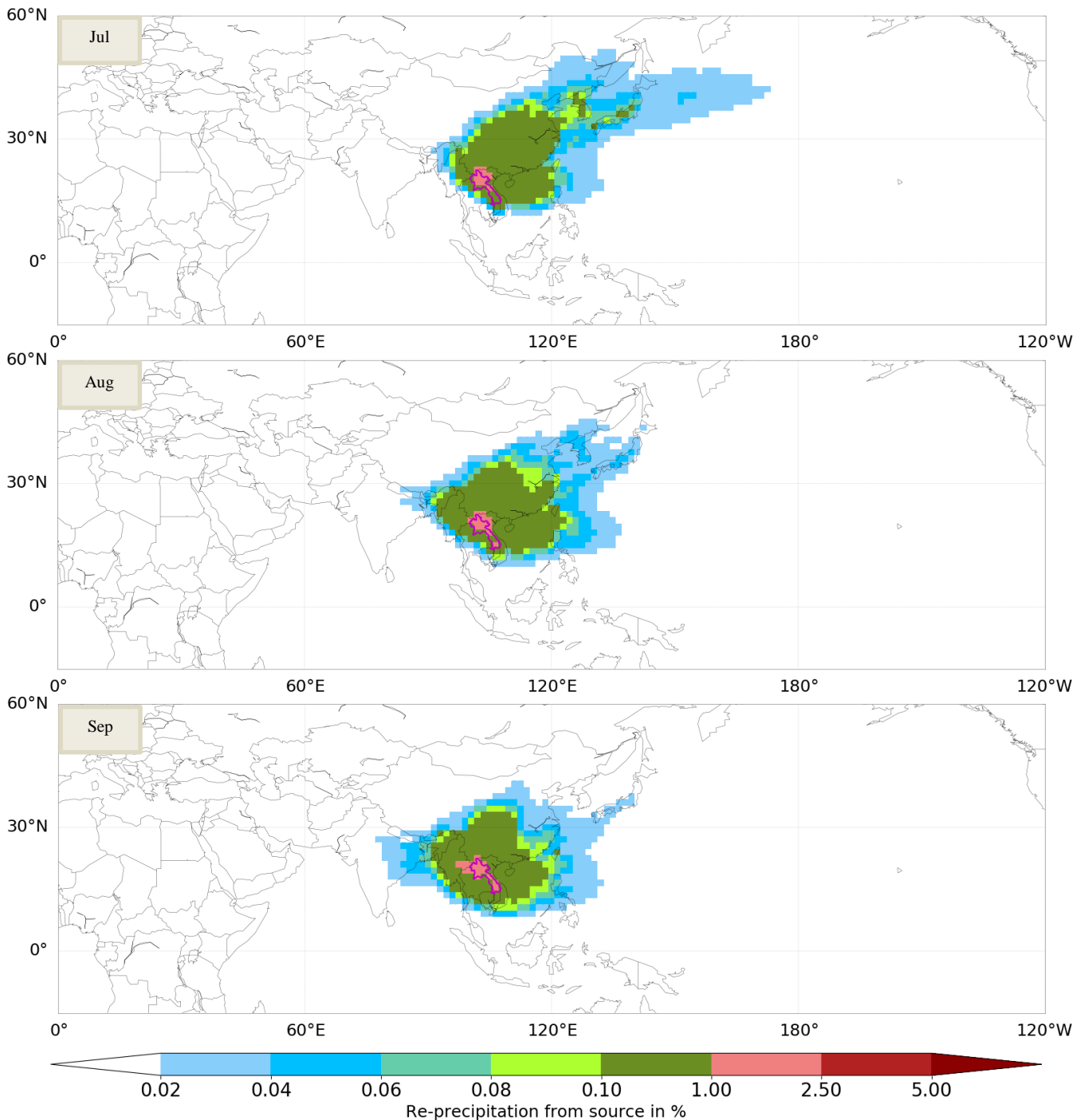


Figure S21 Monthly evaporationsheds (Jan = January, Feb = February, Mar = March) for Laos ,  $E_{input}$  : 67.0 mm/month (Jan) / 75.1 mm/month (Feb) / 105.3 mm/month (Mar), Unassigned : 0.1 % (Jan) / 0.1 % (Feb) / 0.2 % (Mar), Colored area covers 77.2 % (Jan) / 76.3 % (Feb) / 77.5 % (Mar) of the assigned water

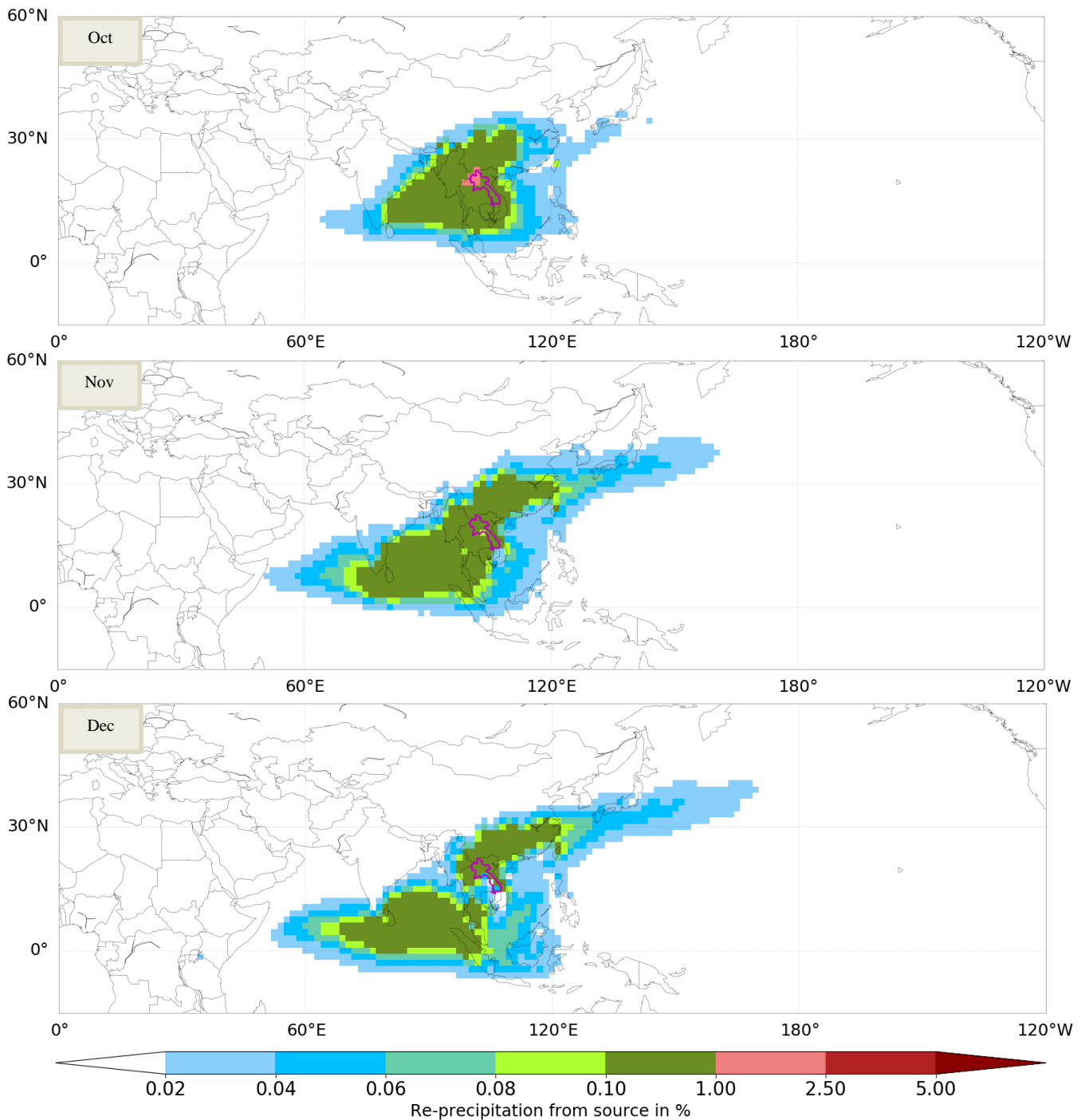


**Figure S22 Monthly evaporationsheds (Apr = April, May, Jun = June) for Laos ,  $E_{input}$  : 123.3 mm/month (Apr) / 123.1 mm/month (May) / 112.7 mm/month (Jun), Unassigned : 0.3 % (Apr) / 0.7 % (May) / 0.6 % (Jun), Colored area covers 80.3 % (Apr) / 82.2 % (May) / 82.1 % (Jun) of the assigned water**

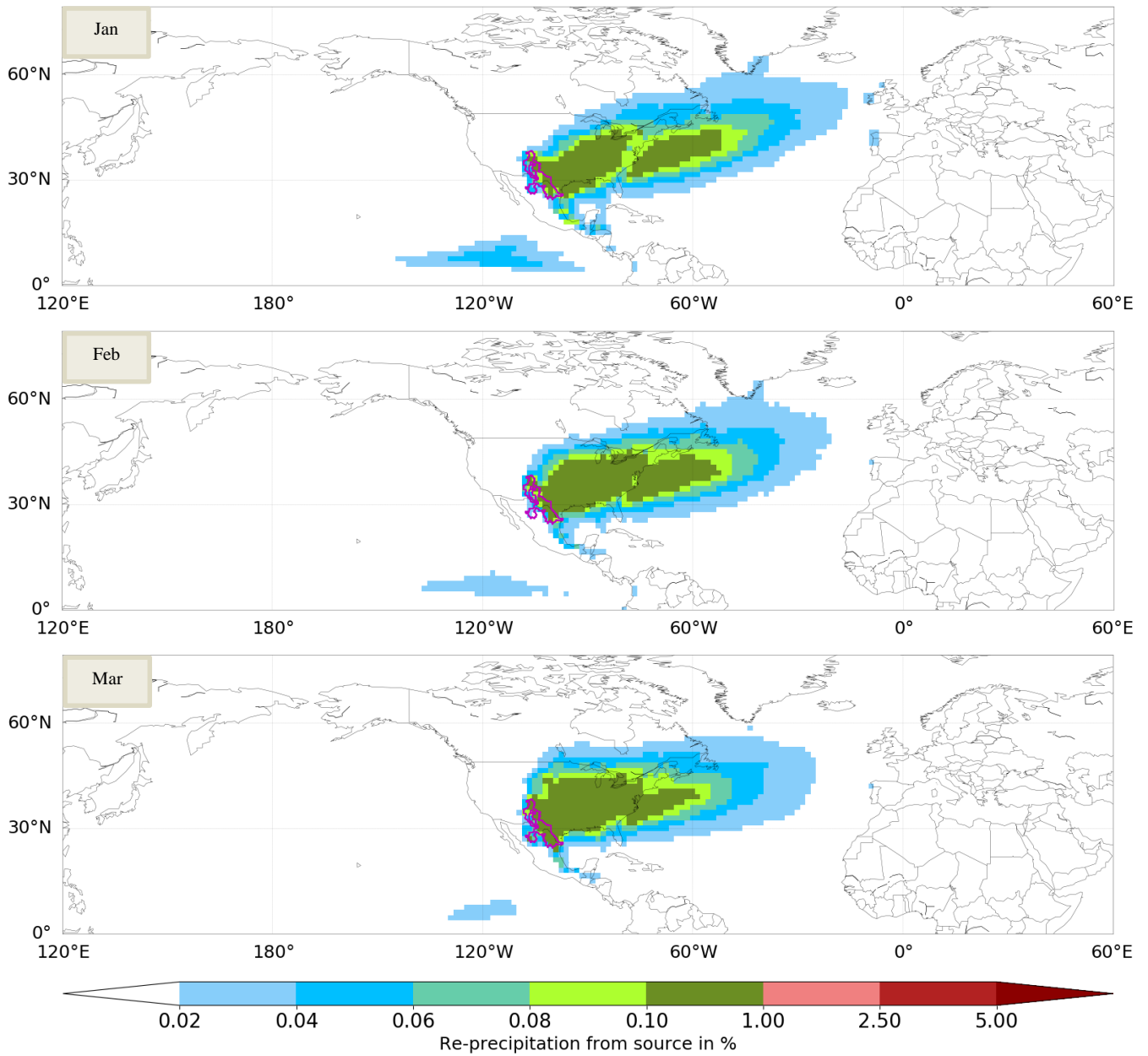




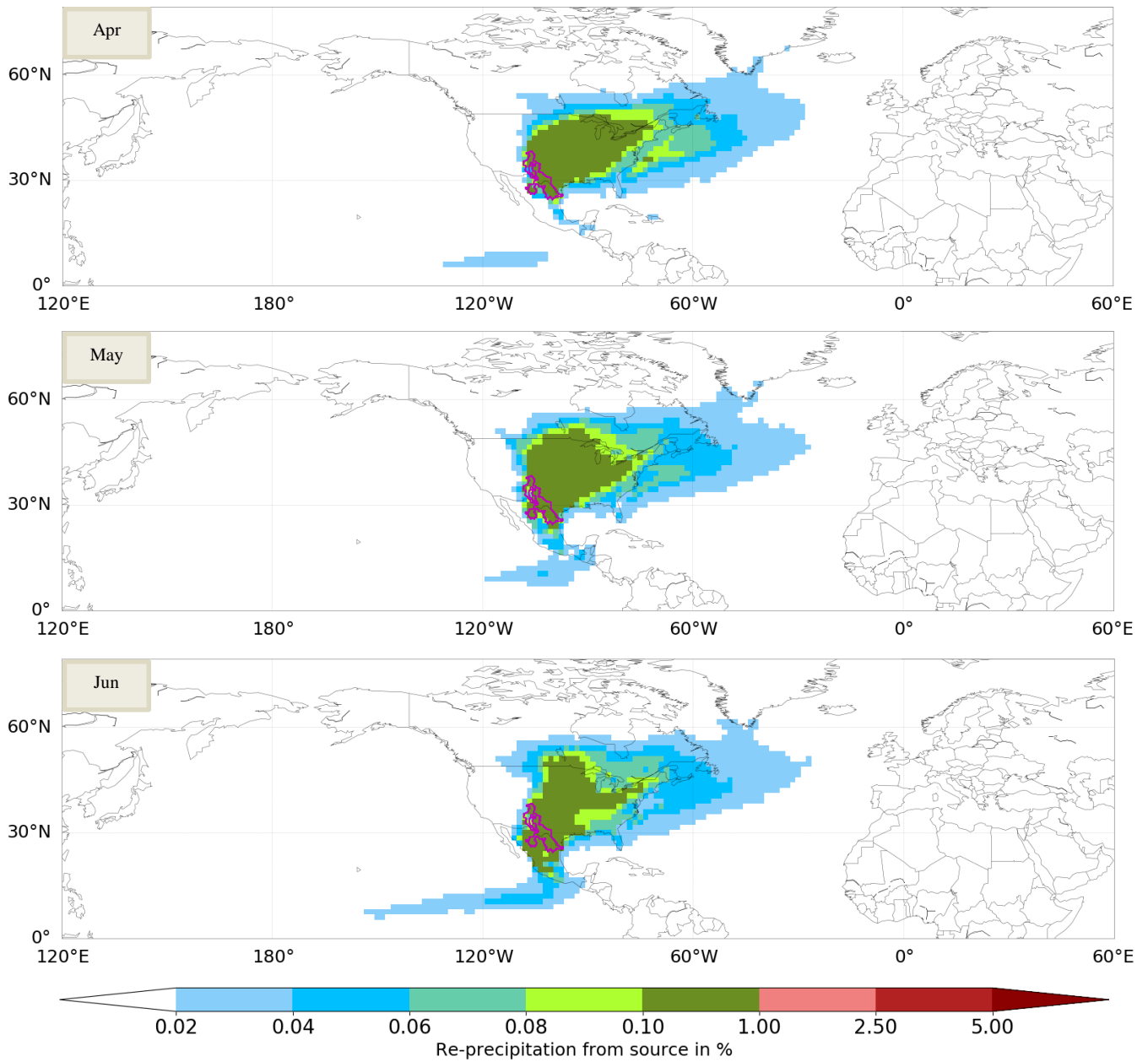
**Figure S23 Monthly evaporationsheds (Jul = July, Aug = August, Sep = September) for Laos ,  $E_{input}$  : 106.0 mm/month (Jul) / 107.0 mm/month (Aug) / 104.1 mm/month (Sep), Unassigned : 1.1 % (Jul) / 0.6 % (Aug) / 0.2 % (Sep), Colored area covers 79.7 % (Jul) / 82.8 % (Aug) / 87.9 % (Sep) of the assigned water**



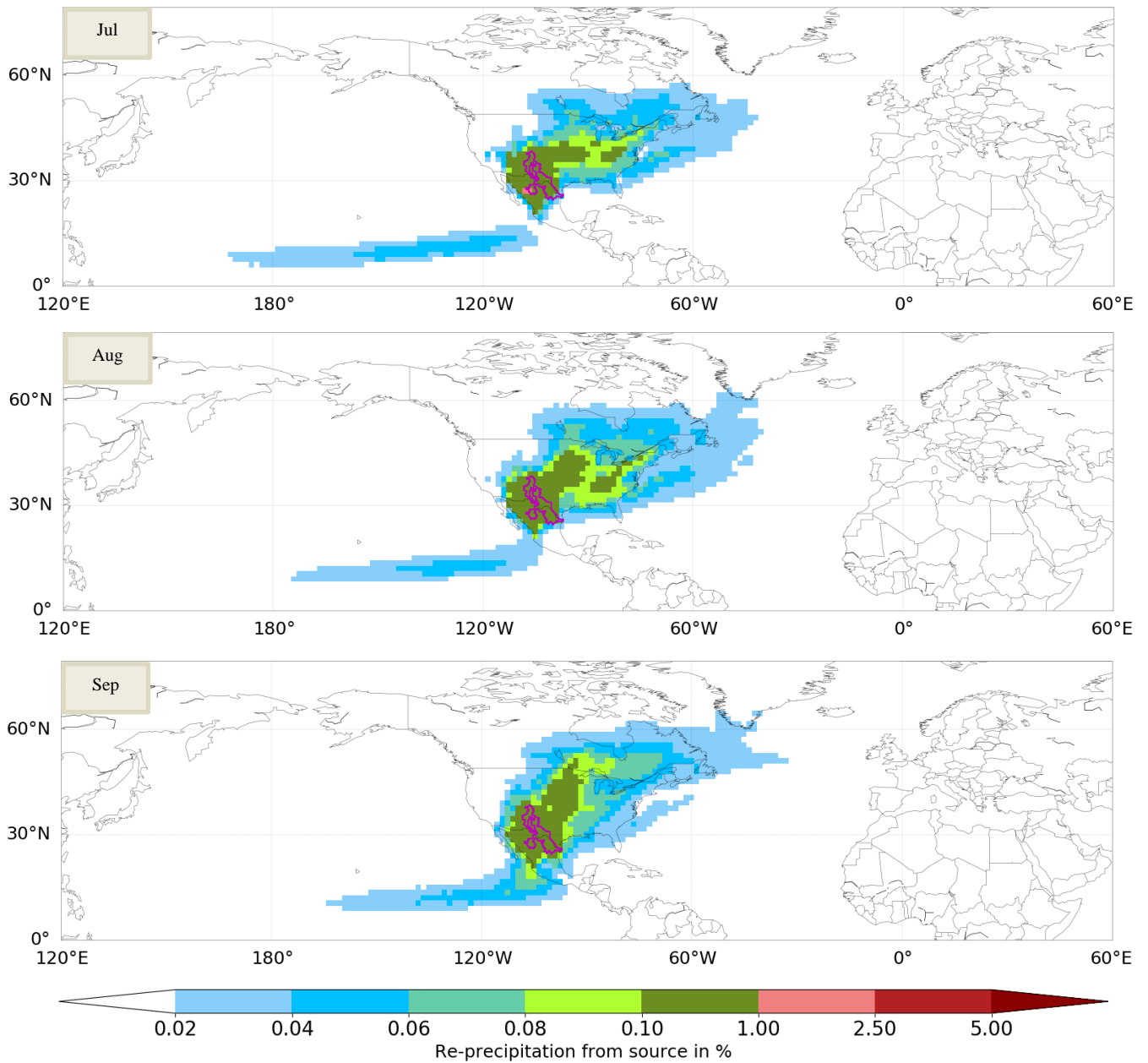
**Figure S24 Monthly evaporationsheds (Oct = October, Nov = November, Dec = December) for Laos ,  $E_{input}$  : 105.0 mm/month (Oct) / 84.6 mm/month (Nov) / 65.8 mm/month (Dec), Unassigned : 0.1 % (Oct) / 0.1 % (Nov) / 0.1 % (Dec), Colored area covers 87.7 % (Oct) / 84.6 % (Nov) / 79.8 % (Dec) of the assigned water**



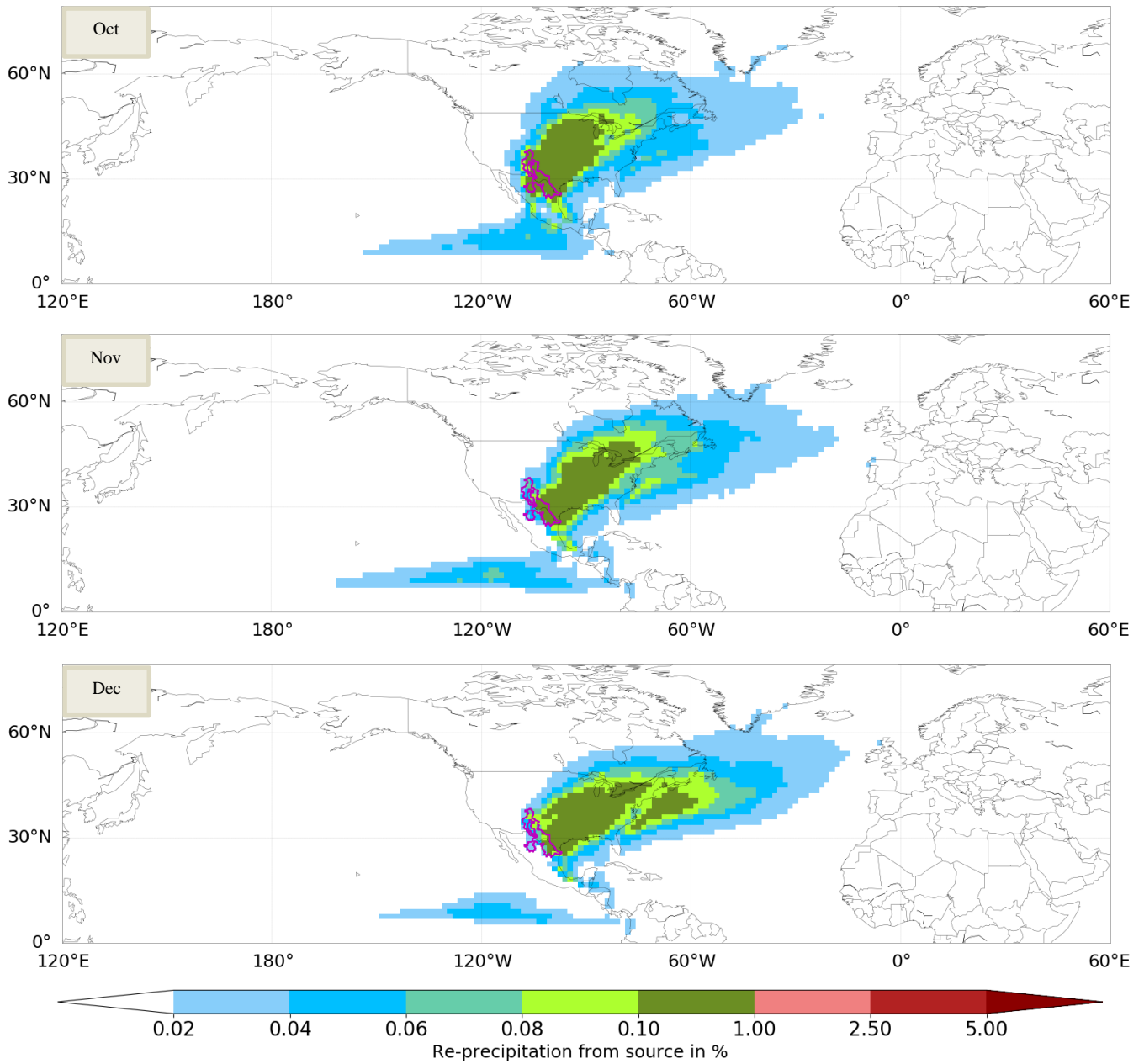
**Figure S25 Monthly evaporationsheds (Jan = January, Feb = February, Mar = March) for the basin with the ID 1463188 (part of the Rio Grande basin),  $E_{input}$  : 19.5 mm/month (Jan) / 21.9 mm/month (Feb) / 32.9 mm/month (Mar), Unassigned : 0.8 % (Jan) / 0.7 % (Feb) / 0.6 % (Mar), Colored area covers 73.6 % (Jan) / 74.4 % (Feb) / 74.0 % (Mar) of the assigned water**



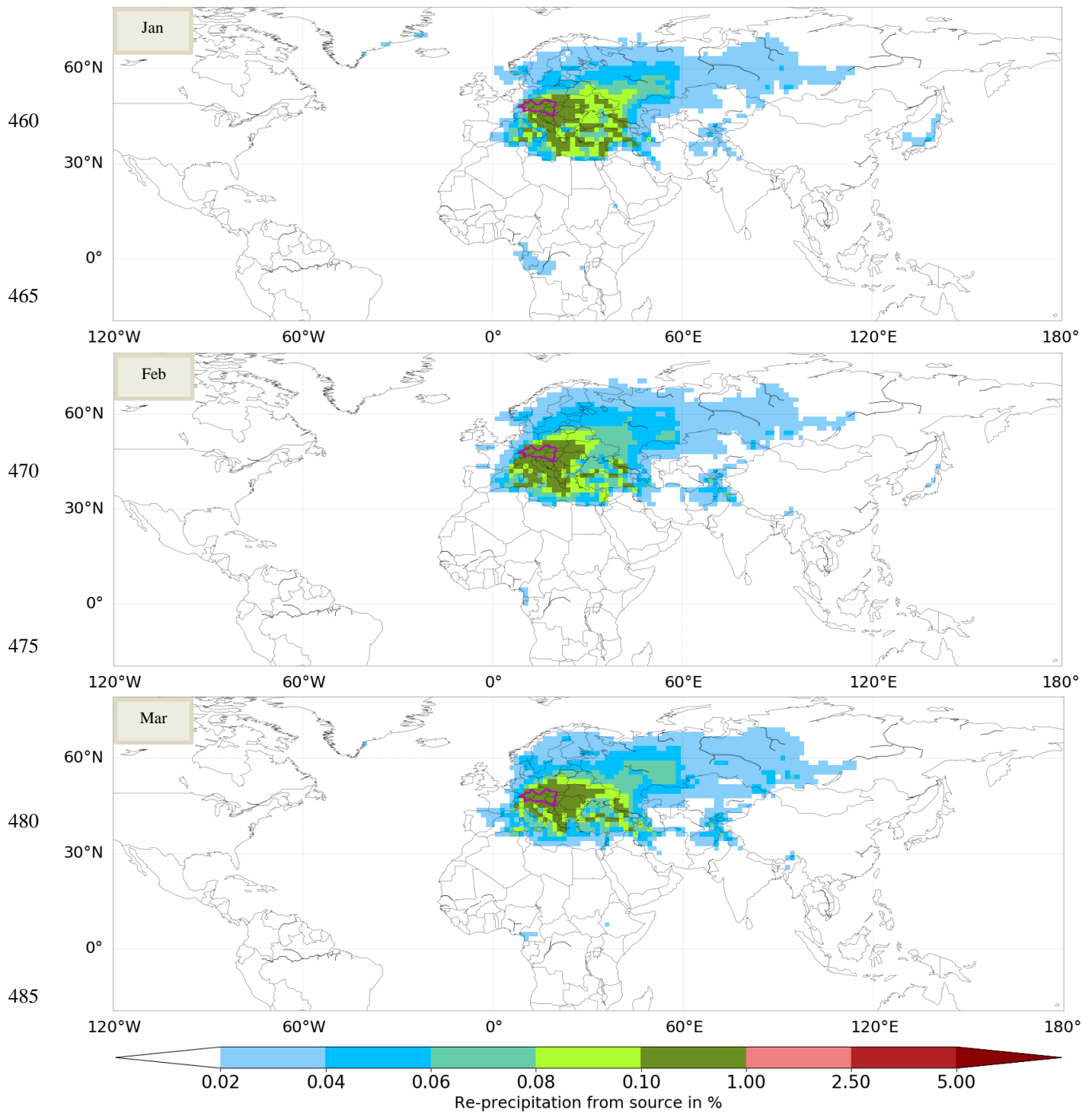
**Figure S26 Monthly evaporationsheds (Apr = April, May, Jun = June) for the basin with the ID 1463188 (part of the Rio Grande basin),  $E_{input}$  : 40.7 mm/month (Apr) / 52.3 mm/month (May) / 50.1 mm/month (Jun), Unassigned : 0.9 % (Apr) / 1.1 % (May) / 1.7 % (Jun), Colored area covers 74.6 % (Apr) / 76.4 % (May) / 73.1 % (Jun) of the assigned water**



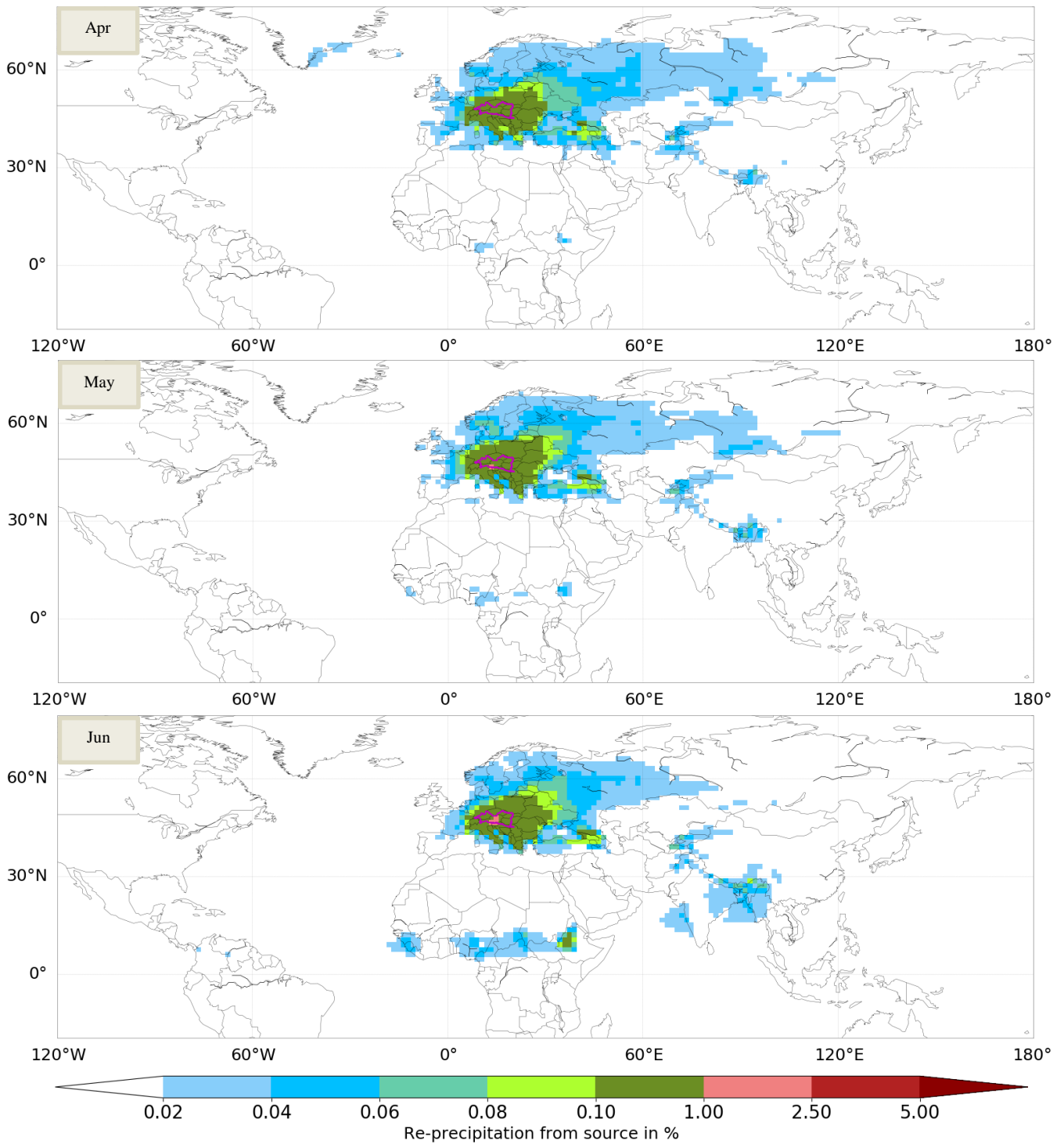
**Figure S27 Monthly evaporationsheds (Jul = July, Aug = August, Sep = September) for the basin with the ID 1463188 (part of the Rio Grande basin),  $E_{input}$  : 67.1 mm/month (Jul) / 64.7 mm/month (Aug) / 60.5 mm/month (Sep), Unassigned : 1.5 % (Jul) / 1.5 % (Aug) / 1.6 % (Sep), Colored area covers 69.1 % (Jul) / 69.7 % (Aug) / 69.9 % (Sep) of the assigned water**



**Figure S28 Monthly evaporationsheds (Oct = October, Nov = November, Dec = December) for the basin with the ID 1463188 (part of the Rio Grande basin),  $E_{input}$  : 47.1 mm/month (Oct) / 26.1 mm/month (Nov) / 19.6 mm/month (Dec), Unassigned : 1.6 % (Oct) / 1.0 % (Nov) / 0.8 % (Dec), Colored area covers 71.3 % (Oct) / 71.2 % (Nov) / 73.1 % (Dec) of the assigned water**

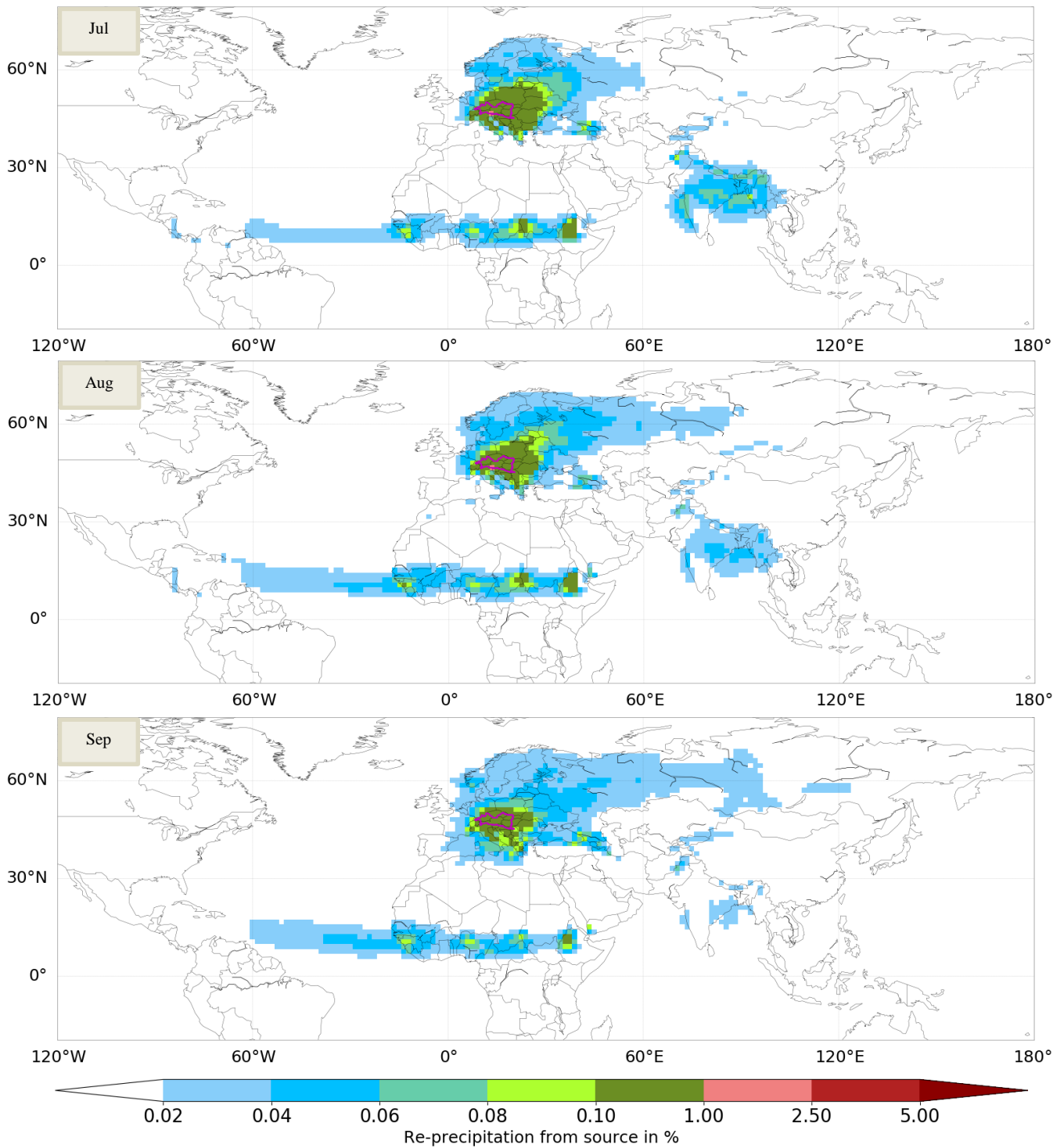


**Figure S29** Monthly evaporationsheds (Jan = January, Feb = February, Mar = March) for the basin with the ID 1019324 (part of the Danube basin),  $E_{input}$  : 10.4 mm/month (Jan) / 15.9 mm/month (Feb) / 36.2 mm/month (Mar), Unassigned : 3.7 % (Jan) / 3.8 % (Feb) / 3.4 % (Mar), Colored area covers 65.4 % (Jan) / 68.0 % (Feb) / 68.8 % (Mar) of the assigned water

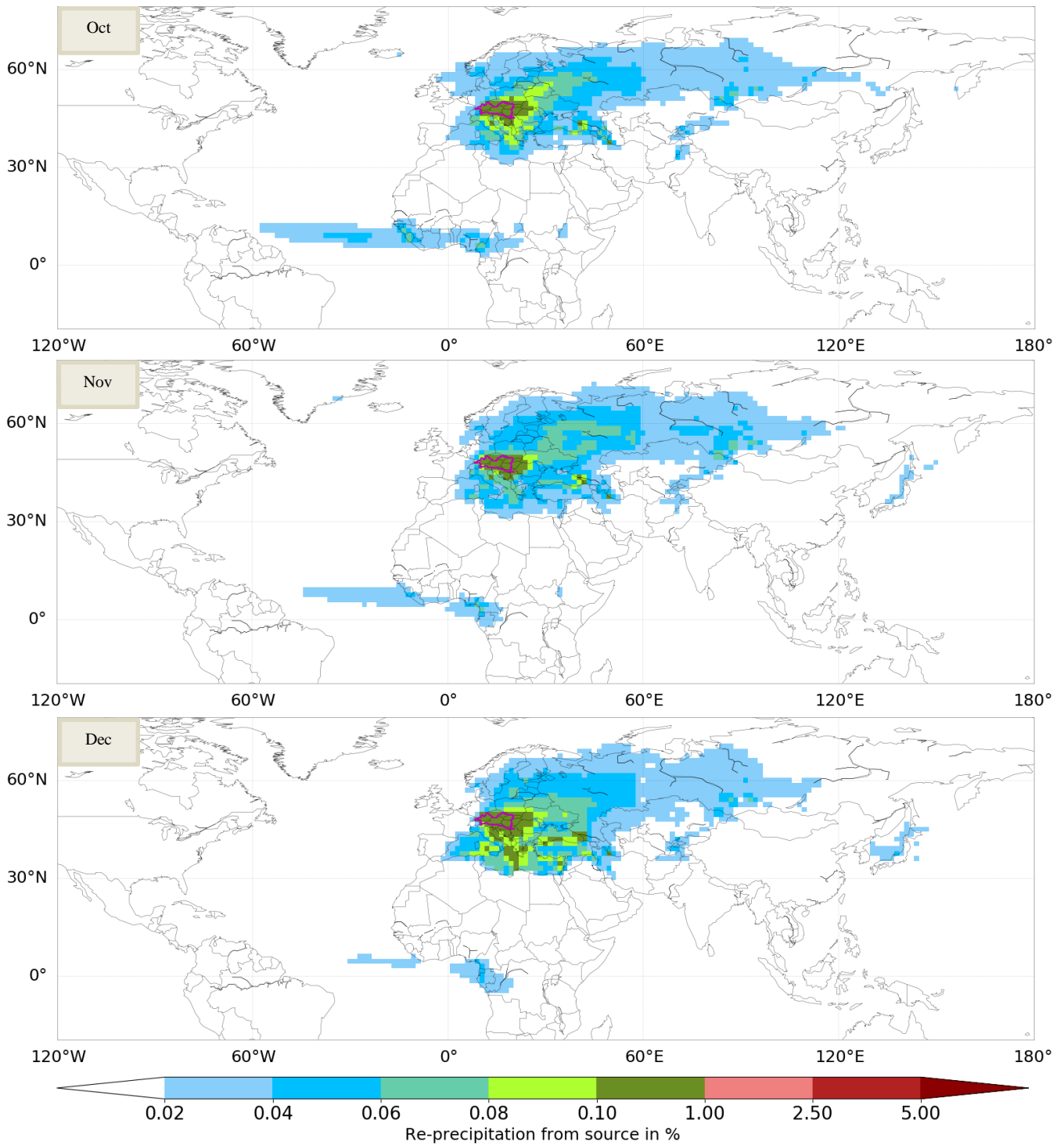


490 **Figure S30** Monthly evaporationsheds (Apr = April, May, Jun = June) for the basin with the ID 1019324 (part of the Danube basin),  $E_{input}$  : 61.6 mm/month (Apr) / 87.7 mm/month (May) / 99.3 mm/month (Jun), Unassigned : 4.6 % (Apr) / 3.6 % (May) / 3.6 % (Jun), Colored area covers 66.4 % (Apr) / 65.8 % (May) / 69.3 % (Jun) of the assigned water

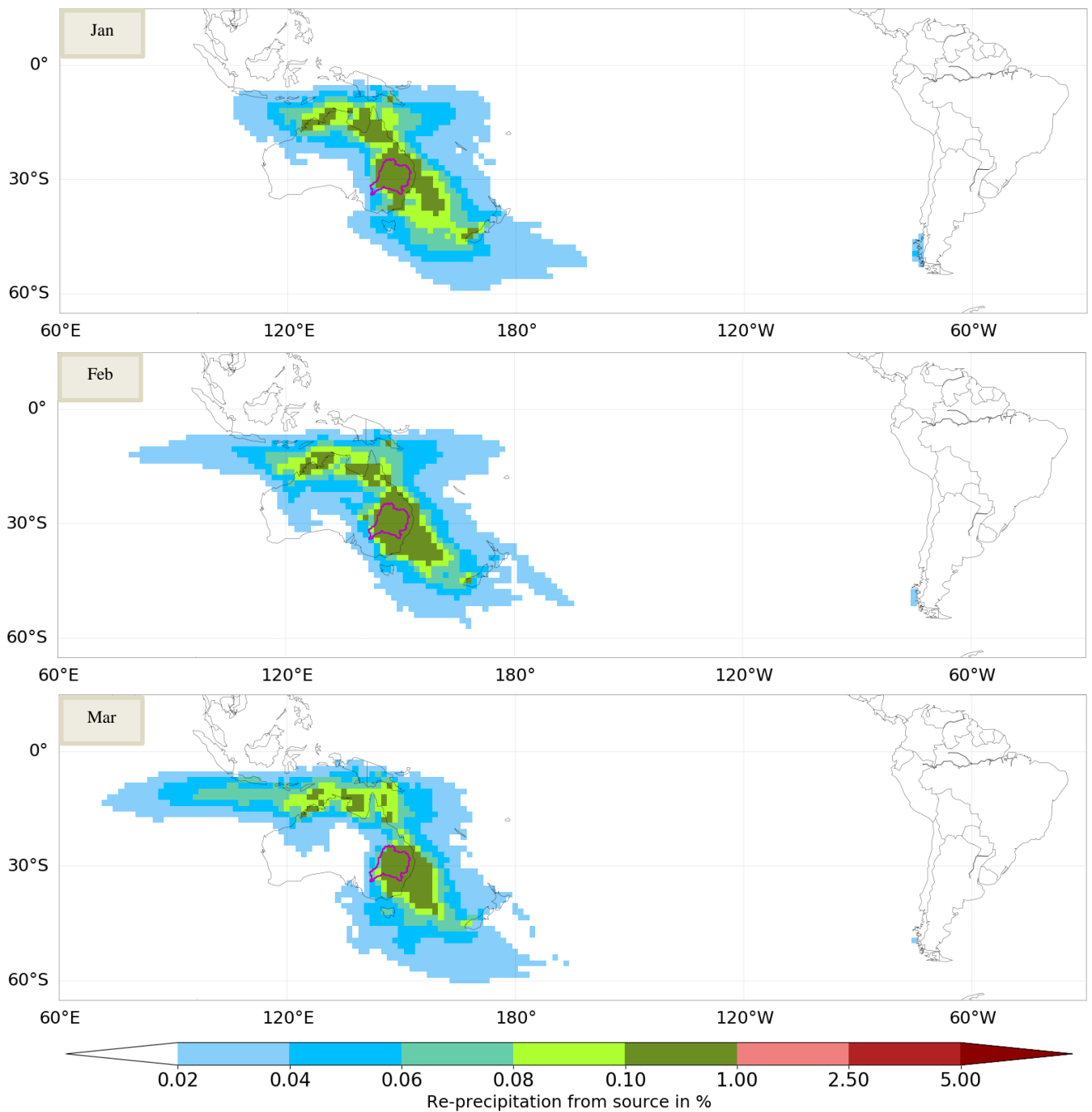




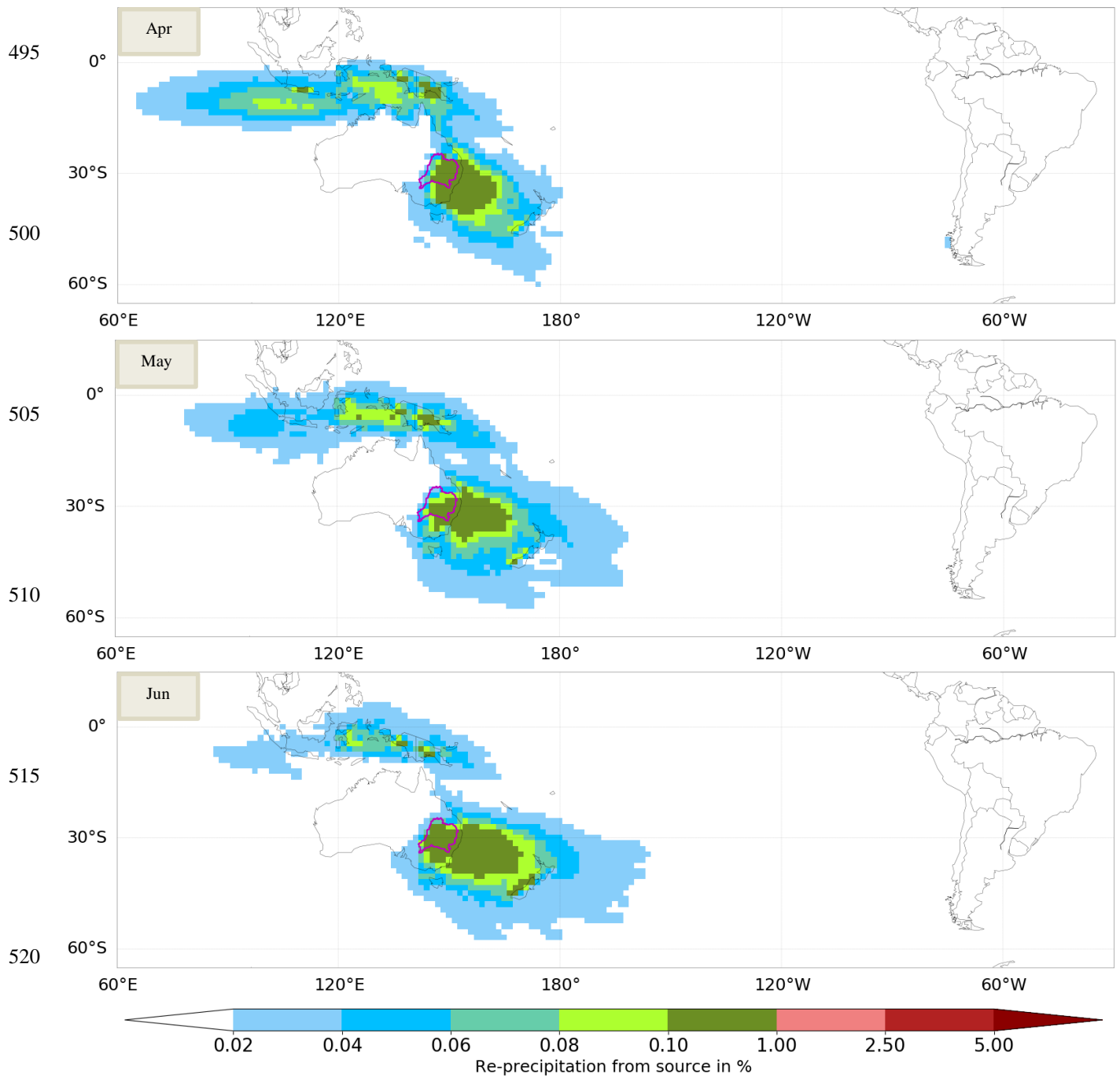
**Figure S31 Monthly evaporationsheds (Jul = July, Aug = August, Sep = September) for the basin with the ID 1019324 (part of the Danube basin),  $E_{input}$  : 103.0 mm/month (Jul) / 85.7 mm/month (Aug) / 53.2 mm/month (Sep), Unassigned : 3.5 % (Jul) / 3.8 % (Aug) / 6.0 % (Sep), Colored area covers 69.5 % (Jul) / 66.5 % (Aug) / 59.6 % (Sep) of the assigned water**



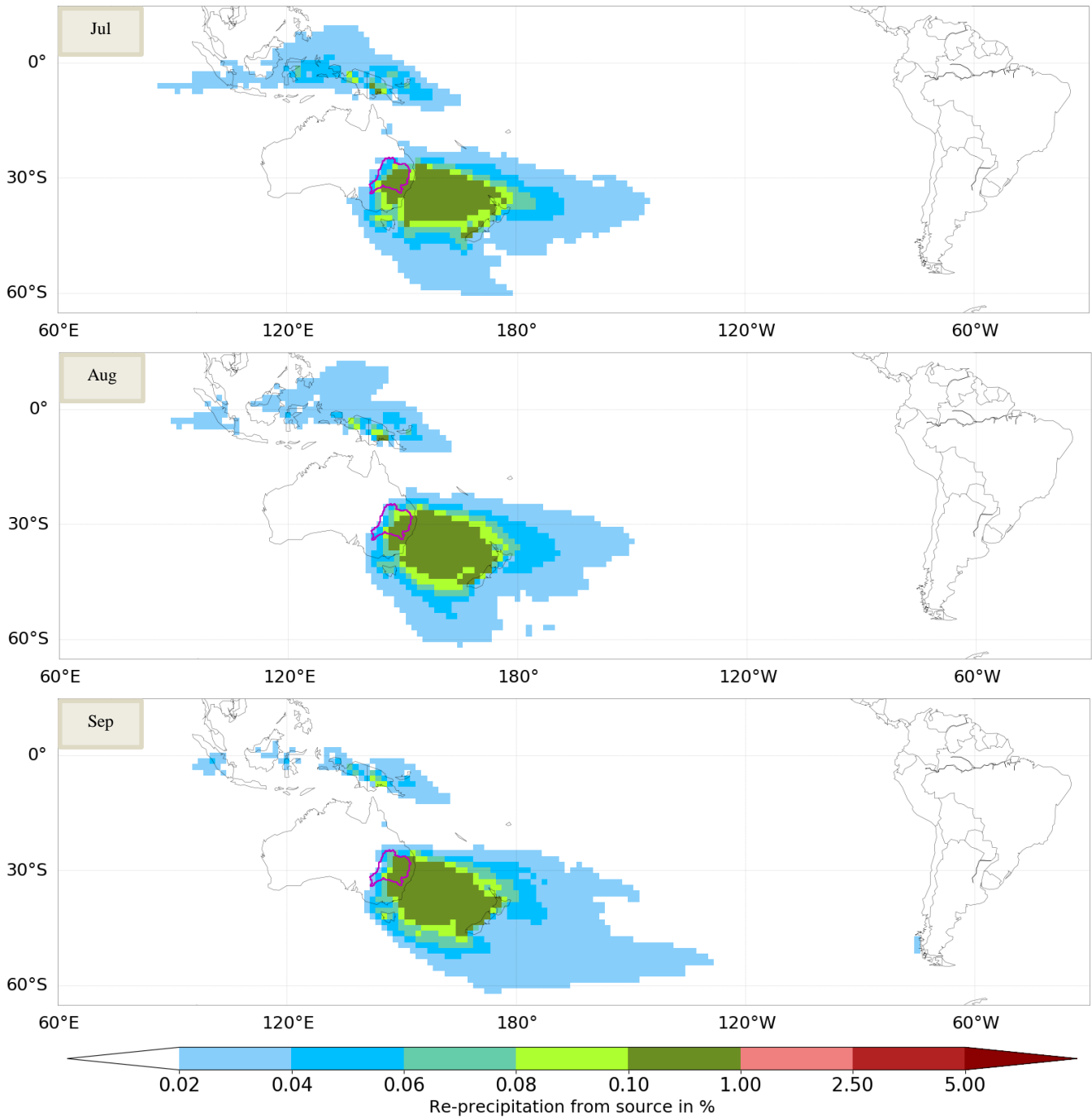
**Figure S32 Monthly evaporationsheds (Oct = October, Nov = November, Dec = December) for the basin with the ID 1019324 (part of the Danube basin),  $E_{input}$  : 31.5 mm/month (Oct) / 15.5 mm/month (Nov) / 9.5 mm/month (Dec), Unassigned : 4.2 % (Oct) / 4.3 % (Nov) / 4.0 % (Dec), Colored area covers 55.6 % (Oct) / 57.8 % (Nov) / 62.2 % (Dec) of the assigned water**



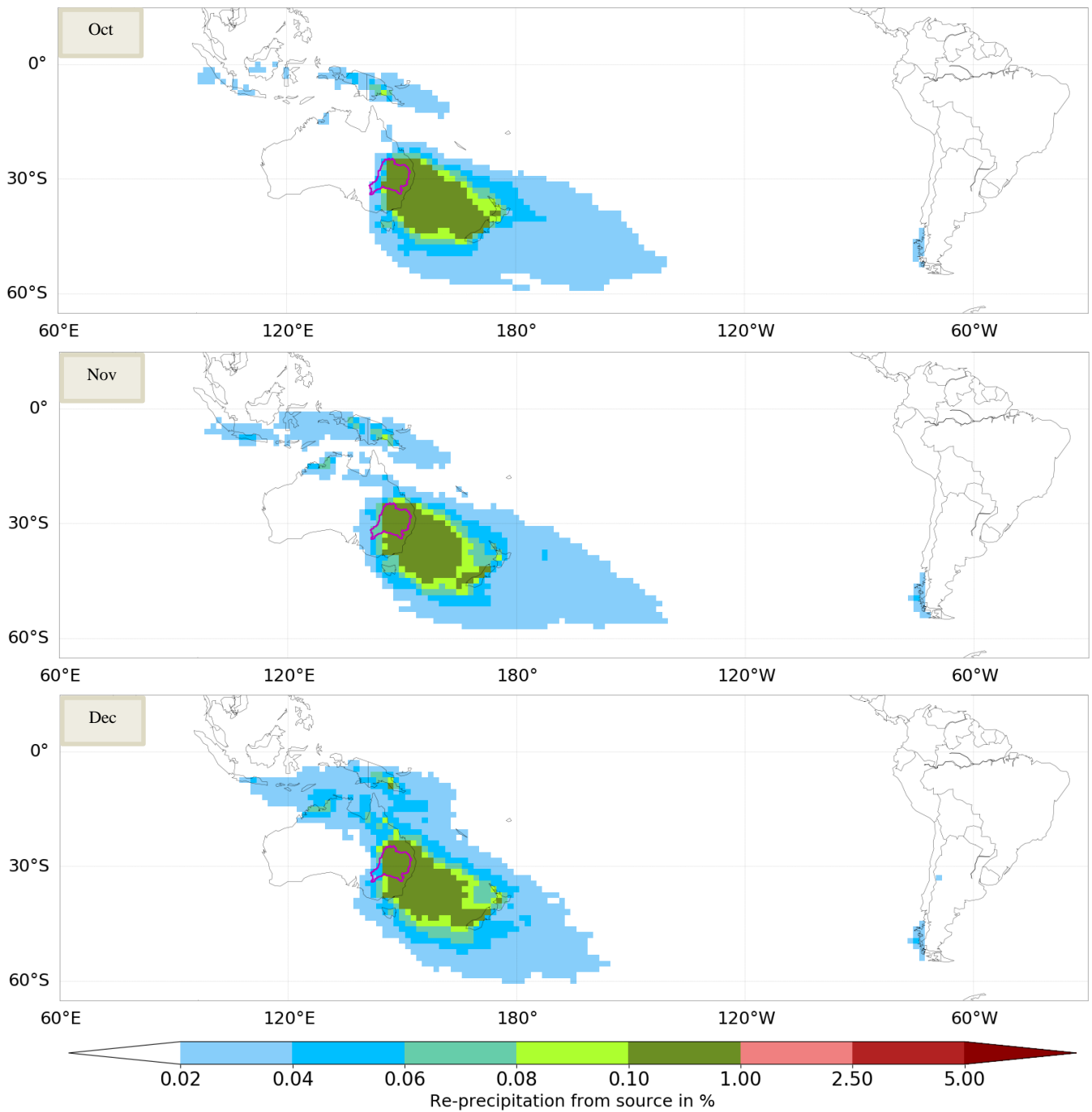
**Figure S33 Monthly evaporationsheds (Jan = January, Feb = February, Mar = March) for the basin with the ID 2245569 (part of the Murray-Darling basin),  $E_{input}$  : 67.3 mm/month (Jan) / 58.0 mm/month (Feb) / 50.2 mm/month (Mar), Unassigned : 0.6 % (Jan) / 0.4 % (Feb) / 0.5 % (Mar), Colored area covers 62.8 % (Jan) / 63.5 % (Feb) / 62.7 % (Mar) of the assigned water**



**Figure S34 Monthly evaporationsheds (Apr = April, May, Jun = June) for the basin with the ID 2245569 (part of the Murray-Darling basin),  $E_{input}$  : 30.0 mm/month (Apr) / 21.6 mm/month (May) / 21.9 mm/month (Jun), Unassigned : 0.5 % (Apr) / 0.5 % (May) / 0.5 % (Jun), Colored area covers 59.9 % (Apr) / 61.4 % (May) / 60.8 % (Jun) of the assigned water**



**Figure S35 Monthly evaporation sheds (Jul = July, Aug = August, Sep = September) for the basin with the ID 2245569 (part of the Murray-Darling basin),  $E_{input}$  : 22.0 mm/month (Jul) / 25.6 mm/month (Aug) / 36.6 mm/month (Sep), Unassigned : 0.5 % (Jul) / 0.5 % (Aug) / 0.6 % (Sep), Colored area covers 60.1 % (Jul) / 60.6 % (Aug) / 61.7 % (Sep) of the assigned water**



**Figure S36 Monthly evaporation sheds (Oct = October, Nov = November, Dec = December) for the basin with the ID 2245569 (part of the Murray-Darling basin),  $E_{input}$  : 48.7 mm/month (Oct) / 57.2 mm/month (Nov) / 64.4 mm/month (Dec), Unassigned : 0.6 % (Oct) / 0.6 % (Nov) / 0.5 % (Dec), Colored area covers 59.3 % (Oct) / 62.0 % (Nov) / 64.0 % (Dec) of the assigned water**

525 Table S1 Terrestrial evaporative source (TES – unit: %) as well as the country internal evaporative source (CIES – unit: %) for precipitation in different countries – Comparison of the results between the 3D QIBT method applied by Dirmeyer et al. (2009) and the WAM-2layers model

	TES in %		CIES in %	
	3D QIBT	WAM-2layers	3D QIBT	WAM-2 layers
<b>North America</b>				
Belize	19.5	15.5	0.5	1.4
Canada	69.7	38.6	54.8	17.4
Costa Rica	34.3	19.3	2.4	1.6
El Salvador	30.0	22.9	1.4	1.7
Guatemala	25.3	22.8	4.0	4.6
Honduras	24.7	18.9	4.2	4.6
Mexico	39.7	28.6	28.4	16.2
Nicaragua	25.9	16.7	5.1	2.7
Panama	42.6	25.1	5.4	2.1
United States	52.5	30.2	43.2	18.3
<b>South America</b>				
Argentina	59.5	50.6	27.9	19.0
Bolivia	82.7	59.4	24.2	16.0
Brazil	56.7	36.7	46.3	28.9
Chile	8.1	4.3	5.4	1.4
Colombia	49.9	37.1	10.9	11.6
Ecuador	62.7	38.5	4.9	7.6
French Guiana	14.5	12.0	2.6	2.3
Guyana	19.1	16.4	3.2	3.2
Paraguay	90.0	61.9	13.0	6.5
Peru	71.8	49.2	25.9	16.5
Suriname	18.2	14.8	2.8	3.0
Uruguay	75.1	55.3	8.1	2.8
Venezuela	29.4	27.0	9.1	9.8
<b>Europe</b>				
Albania	31.9	31.3	2.6	1.3
Armenia	60.8	59.3	3.9	3.2
Austria	54.4	41.9	6.7	2.9
Azerbaijan	59.2	51.6	6.5	4.0
Belarus	67.2	42.1	12.3	3.5

	TES in %		CIES in %	
	3D QIBT	WAM-2layers	3D QIBT	WAM-2 layers
Belgium	26.7	25	2.9	1.0
Bosnia and Herzegovina	42.7	33.8	6.6	1.9
Bulgaria	53.3	42.2	7.2	4.2
Croatia	47.3	33.7	5.1	1.7
Czech Republic	54.5	38.6	5.5	2.5
Denmark	27.1	25.1	2.9	1.1
Estonia	52.8	33.5	4.7	1.3
Finland	58.7	34.8	19.2	3.3
France	26.0	24.7	12.6	5.5
Georgia	60.9	53.7	7.3	4.0
Germany	39.2	31.2	11.9	4.3
Greece	30.2	31.6	8.2	3.7
Hungary	60.8	40.1	7.1	2.7
Iceland	16.8	16.7	8.8	1.0
Ireland	11.1	16.8	5.3	1.3
Italy	39.8	33.6	14.2	5.6
Latvia	54.0	35.6	4.8	1.6
Lithuania	54.4	37.3	4.9	1.7
Luxembourg	28.8	26.4	0.4	0.2
Macedonia	37.6	38.8	1.4	1.6
Moldova	70.1	45.7	3.4	1.5
Netherlands	25.0	24.1	3.1	1.1
Norway	26.0	23.8	10.9	2.3
Poland	56.1	38.5	14.0	4.1
Portugal	9.9	12.4	3.9	1.6
Romania	66.1	46.5	15.3	6.3
Russia	83.2	53.9	64.7	27.8
Slovakia	63.2	42.2	5.6	1.4
Slovenia	53.8	40.5	3.3	1.5
Spain	19.3	21.0	12.6	6.3
Sweden	42.8	31.2	18.7	4.0
Switzerland	42.5	36.5	6.4	2.3
Ukraine	69.0	43.5	19.0	6.6
United Kingdom	14.9	19.1	6.4	2.2



	TES in %		CIES in %	
	3D QIBT	WAM-2layers	3D QIBT	WAM-2 layers
<b>Africa</b>				
Algeria	24.6	31.6	8.3	5.0
Angola	81.3	58.1	23.6	20.9
Benin	66.0	57.2	5.2	4.9
Botswana	82.9	56.6	17.9	10.9
Burkina Faso	73.5	63.0	10.3	7.9
Burundi	55.8	40.8	1.9	3.2
Cameroon	78.6	64.0	11.4	11.7
Central African Republic	82.0	62.1	11.8	12.9
Chad	68.0	68.0	15.7	12.4
Congo	80.9	58.8	10.6	9.5
Cote d'Ivoire	61.2	47.6	9.1	9.4
Djibouti	47.8	37.5	1.3	0.9
Egypt	17.6	23.4	2.8	2.7
Equatorial Guinea	73.3	60.8	1.2	4.2
Eritrea	51.9	48.0	4.0	4.1
Ethiopia	56.4	44.2	25.6	15.9
Gabon	71.2	59.4	9.9	10.0
Gambia	60.3	53.6	0.7	0.8
Ghana	62.5	48.0	8.1	7.8
Guinea	64.7	58.5	7.3	7.5
Guinea-Bissau	56.5	51.7	3.0	2.3
Kenya	34.8	22.9	11.9	9.2
Lesotho	68.9	48.7	3.9	2.7
Liberia	50.5	44.1	3.5	4.3
Libya	19.8	28.5	5.0	2.3
Madagascar	27.4	18.1	20.5	11.6
Malawi	60.0	37.1	6.6	3.5
Mali	31.9	66.8	17.4	10.7
Mauritania	58.7	62.8	8.6	4.2
Morocco	12.7	21.8	7.7	5.2
Mozambique	49.5	29.3	20.2	11.5

	TES in %		CIES in %	
	3D QIBT	WAM-2layers	3D QIBT	WAM-2 layers
Namibia	84.2	60.7	20.6	12.6
Niger	60.0	72.0	17.8	8.2
Nigeria	66.2	58.8	18.8	14.4
Rwanda	57.0	40.9	1.4	2.6
Senegal	64.2	58.4	6.5	6.0
Sierra Leone	53.6	51.2	3.9	4.1
Somalia	22.2	14.5	7.4	6.7
South Africa	61.6	43.3	23.1	14.4
Sudan + South Sudan	70.9	54.5	20.1	17.4
Swaziland	62.0	43.3	1.7	1.7
Tanzania	41.6	31.5	17.4	14.1
Togo	53.1	53.5	1.9	3.0
Tunisia	24.9	29.2	3.8	2.8
Uganda	60.6	36.7	10.3	9.3
Western Sahara	18.8	29.0	1.5	0.9
DR Congo	75.2	52.0	28.5	25.1
Zambia	73.2	51.3	19.0	13.9
Zimbabwe	70.5	45.5	16.2	10.3
<b>Western Asia</b>				
Afghanistan	51.3	44.7	11.1	8.5
Bangladesh	57.8	34.7	4.7	3.0
Bhutan	84.0	48.0	3.7	2.0
India	60.3	36.6	36.4	18.1
Iran	41.5	35.8	11.2	7.0
Iraq	32.3	31.9	4.9	3.7
Israel	13.3	21.8	0.8	0.8
Jordan	16.1	26.7	1.5	0.9
Kazakhstan	76.2	50.8	21.5	10.7
Kyrgyzstan	73.6	60.9	10.6	8.4
Lebanon	13.7	22.7	1.5	0.5
Nepal	85.5	48.6	12.5	5.5
Oman	37.6	20.9	2.0	1.6

	TES in %		CIES in %	
	3D QIBT	WAM-2layers	3D QIBT	WAM-2 layers
Pakistan	67.8	50.8	15.8	12.9
Qatar	45.5	24.0	0.4	0.3
Saudi Arabia	46.3	30.2	8.2	6.4
Sri Lanka	16.7	13.1	5.4	2.3
Syria	23.1	28.8	4.4	2.7
Tajikistan	63.1	53.9	6.9	6.3
Turkey	40.9	36.3	22.3	9.8
Turkmenistan	50.8	39.0	4.3	3.3
United Arab Emirates	47.2	23.5	1.7	1.5
Uzbekistan	59.2	42.7	5.3	4.2
Yemen	50.4	39.1	5.9	5.6
<b>Eastern Asia &amp; Oceania</b>				
Australia	38.6	22.9	37.9	20.7
Burma	49.3	29.3	12.6	6.7
Cambodia	23.0	19.0	5.8	5.9
China	74.8	56.2	41.4	25.9
Indonesia	28.2	18.6	22.3	12.2
Japan	36.6	26.6	10.1	3.3
Laos	43.7	30.0	6.6	4.1
Malaysia	30.5	18.3	10.5	6.3
Mongolia	95.7	80.3	30.8	12.4
New Zealand	9.9	8.8	6.7	2.2
North Korea	67.9	48.6	7.4	2.4
Papua New Guinea	29.3	12.2	19.1	7.2
Philippines	11.6	9.3	6.3	3.4
South Korea	47.2	32.4	5.5	1.6
Thailand	30.3	22.4	9.3	6.8
Vietnam	33.6	25.7	6.7	4.1

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