Appendix 2. Algorithmic statements for Guyana (South America), Cuba (America), Democratic Republic of the Congo (Africa), Georgia (Southern Europe), Guinea (Africa) and Macedonia (Southern Europe)

2. E2 (S-R)
Example Guyana
E2 Temp is high – high
E2 P is 0.75 low - med 0.25 low – med-high
E2 GFF ≥0 low - low
E2 A is low – med-high


IF Variables A =
- Temperature = 80-100 % to 80-100 %
- Precipitation = 0.75 x 0-100 Kg m² to 200-300 Kg m², 0.25 x 0-100 Kg m² to 300-400 Kg m²
- Ground Frost frequency = 0-6 days to 0-6 days
- Altitude = -30-1366 m to 4098-5464 m

THEN Environment 2 (B) = 50700-51847

3. E2/3 (S-R – C-R)
Example Cuba
E3 Temp is 0.25 med-high – high 0.75 high-high
E3 P is 0.5 low – low 0.25 med - high 0.5 low-med – med
E3 GFF ≥0 low-low
E3 A is low – low-med


IF Variables (A) =
- Temperature = 0.25 x 60-80 % to 80-100 %, 0.75 80-100 % - 80-100 %
- Precipitation = 0.5 x 0-100 Kg m² to 0-100 Kg m², 0.25 x 0-100 Kg m² to 200-300 Kg m², 0.25 x 100-200 Kg m² to 200-300 Kg m
- Ground Frost frequency = 0-6 days to 0-6 days
- Altitude = -30-1366 m to 1366-2732 m

THEN Environment (B) = 33356-50700

4. E3/4 (C-R - C)
Example Congo (DRC)
E4 Temp is med-high – high
E4 P is 0.5 med-high 0.5 med-low – med
E4 GFF is 0.5 low-med-med 0.5 low – low
E4 A is low – med-high
IF \( A_1(4) - A_1(5) \) AND \( 0.5A_2(1) - A_2(4) \) AND \( 0.5A_2(1) - A_2(3) \) AND \( 0.5A_3(1) - A_3(2) \) AND \( 0.5A_3(1) - A_3(1) \) IS \( \leq A_3(1) \) AND \( A_4(1) - A_4(4) \) THEN \( B_{113556}=E_4 \)

IF Variables (A) =

Temperature = 60-80 % to 80-100 %
Precipitation = 0.5 x 0-100 Kg m\(^2\) to 300-400 Kg m\(^2\), 0.5 x 0-100 Kg m\(^2\) to 200-300 Kg m\(^2\)
Ground Frost frequency = 0.5 x 0-6 days to 6-12 days, 0.5 x 0-6 days to 0-6 days
Altitude = -30-1366 m to 4098-5464 m

THEN Environment (B) = 113555-33356

5. \( E_5/6 \) (C-S-R – C-S)
Examples Georgia, Azerbaijan
\( E_5 \) Temp is 0.75med – med-high 0.25med-high - high
\( E_5 \) P is 0.75low – low-med 0.25low – med
\( E_5 \) GFF is 0.25low-med – high 0.5low – med-high 0.25low – low-med
\( E_5 \) A is low – med-high

IF \( 0.75A_1(3) - A_1(4), 0.25A_1(4) - A_1(5) \) AND \( 0.75A_2(1) - A_2(2) \), \( 0.25A_2(1) - A_2(3) \) AND \( 0.25A_3(2) - A_3(3), 0.5A_3(1) - A_3(4), 0.25A_3(1) - A_3(2) \) AND \( A_4(1) - A_4(4) \) THEN \( B_{113556}=E_5 \)

IF Variables (A) =

Temperature = 0.75 x 40-60 % to 60-80 %, 0.25 x 60-80 % to 80-100%
Precipitation = 0.75 0-100 Kg m\(^2\) to 100-200 Kg m\(^2\), 0.25 x 0-100 Kg m\(^2\) to 200-300 Kg m\(^2\)
Ground Frost frequency = 0.25 x 6-12 days – 24-30 days, 0.5 0-6 days to 18-24 days, 0.25 x 0-6 days to 6-12 days
Altitude = -30-1366 m to 4098-5464 m

THEN Environment (B) = 8805-11355

6. \( E_6 \) (C-S)
Example Azerbaijan
\( E_6 \) Temp is 0.25med – med-high 0.5med-high – med-high 0.25med-high - high
\( E_6 \) P is low – low-med
\( E_6 \) GFF is 0.25med – high 0.5low – med 0.25low – low-med
\( E_6 \) A is low – med-high

IF \( 0.25A_1(3) - A_1(4), 0.5A_1(4) \) IS \( \leq A_1(4) \), \( 0.25A_1(4) - A_1(5) \) AND \( A_2(1) - A_2(2) \) AND \( 0.25A_3(3) - A_3(5), 0.5A_3(1) - A_3(3), 0.25A_3(1) - A_3(2) \) AND \( A_4(1) - A_4(4) \) THEN \( B_{8805}=E_6 \)

IF Variables (A) =
Temperature = 0.25 x 40-60 % to 60-80 %, 0.5 60-80 % to 60-80%, 0.25 60-80 % to 80-100%
Precipitation = 0-100 Kg m$^2$ to 100-200 Kg m$^2$
Ground Frost frequency = 0.25 x 12-18 days to 24-30 days, 0.5 0-6 days to 12-18 days, 0.25 x 0-6 days to 6-12 days
Altitude = -30-1366 m to 4098-5464 m

THEN Environment (B) = 2023-8805

7. E7 (S)
Example data not available though E6 Macedonia as a potential candidate
E6 Temp is 0.75med-high – med-high 0.25med-high – high
E6 P is low – low-med
E6 GFF is 0.25low-med – high 0.5low - low-med 0.25low – low
E6 A is low – med

IF 0.75A1(4) IS ≤ A1(4), 0.25A1(4) - A1(5) AND A2(1) - A2(2) AND 0.25A3(2) - A3(5), 0.5A3(1) - A3(2), 0.25A3(1) IS ≤ A3(1) AND A4(1) - A4(3) THEN B(2023)=E7

IF Variables (A) =

Temperature = 0.75 x 60-80 % to 60-80%, 0.25 60-80 % to 80-100%
Precipitation = 0-100 Kg m$^2$ to 100-200 Kg m$^2$
Ground Frost frequency = 0.25 6-12 days to 24-30 days, 0.5 0-6 days to 6-12 days, 0.25 0-6 days to 0-6 days
Altitude = -30-1366 m to 2732-4098 m

THEN Environment (B) = 0-2023