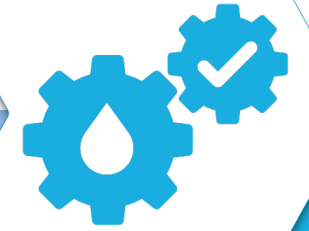




Food and Agriculture Organization
of the United Nations



THE PRISM TOOL

Eva Pek

Land and Water Division (NSL), FAO

Tunis, 13 December 2022



Regional gathering
Tunis, 12 – 16 December 2022



ITALIAN AGENCY
FOR DEVELOPMENT
COOPERATION

PRIORITIZATION OF IRRIGATION SCHEMES FOR MODERNIZATION/REHABILITATION

THE NEED FOR A NEW TOOL

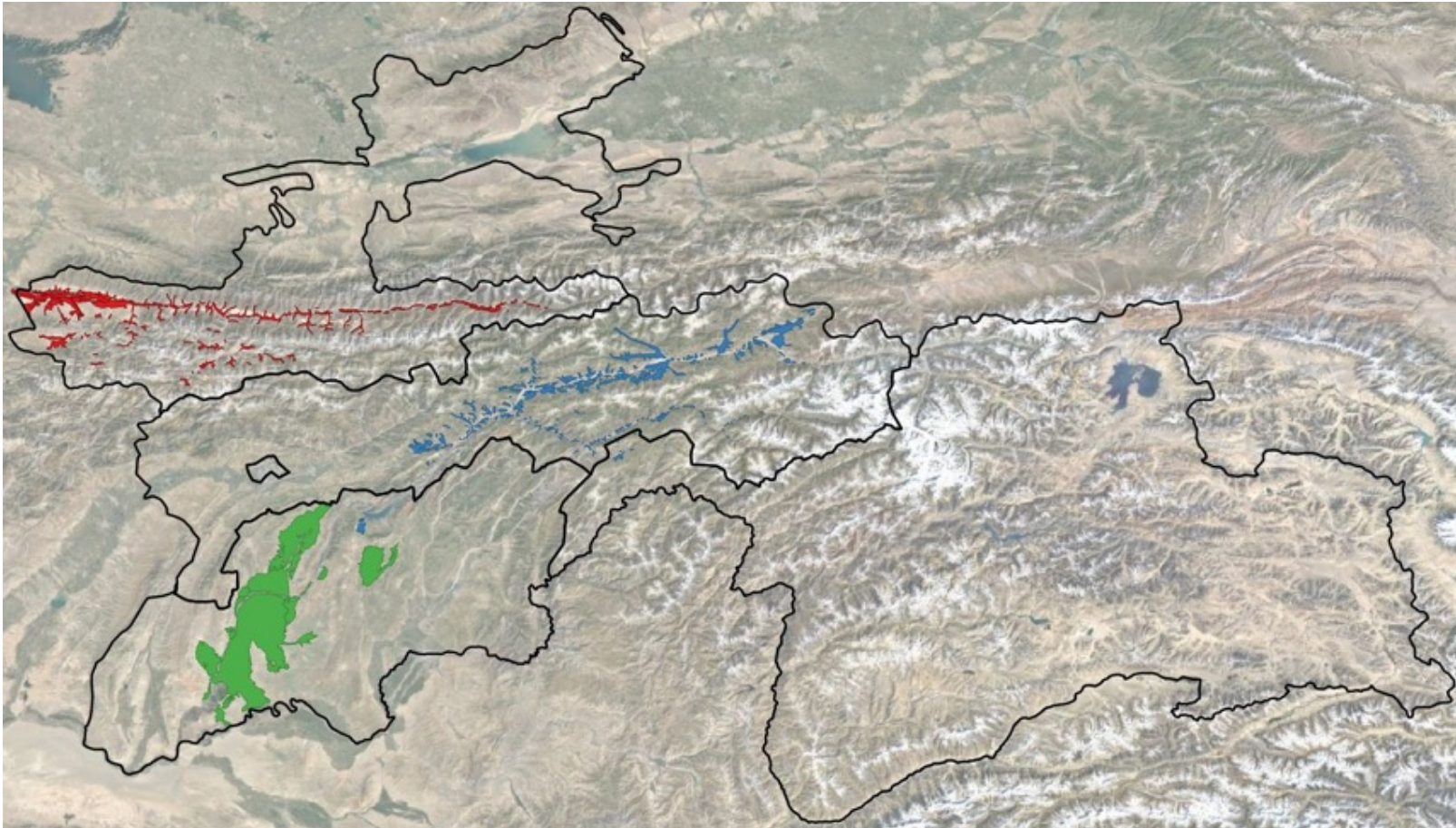


THE NEED FOR A NEW TOOL



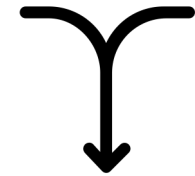


THE TRIGGER – Competition for limited resources



WORLD BANK GROUP

**Technical Assistance
Programme:
Tajikistan**



To select irrigation
systems for
rehabilitation



THE NEED

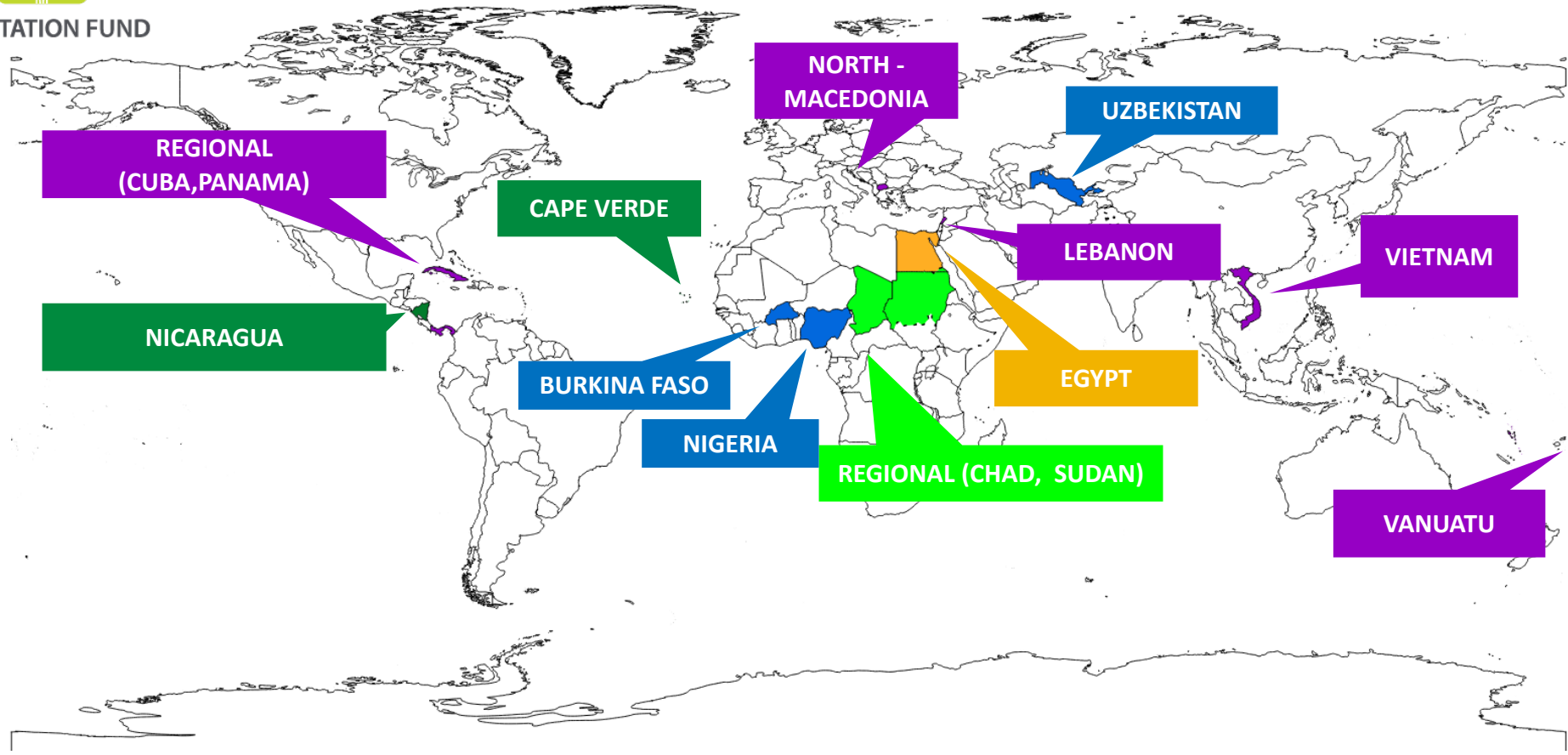
Objective criteria system for selection



THE TRIGGER – Compliance with multiple pre-requisites



ADAPTATION FUND



Total FAO portfolio
78 549 223 USD

- Concept Notes Approved
- Full proposal Approved
- Innovation project Approved
- Concept Notes- under development
- Concept Notes Approved- Full Proposal under development

United Nations Geospatial. 2020. Map geodata [shapefiles]. New York, USA, United Nations, modified by the author. Dashed lines on maps represent approximate border lines for which there may not yet be full agreement. Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties. Final boundary between the Sudan and South Sudan has not yet been determined. Final status of the Abyei area is not yet determined. A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty over the Falkland Islands (Malvinas).



THE TRIGGER – Compliance with multiple pre-requisites



Targeting strategy:

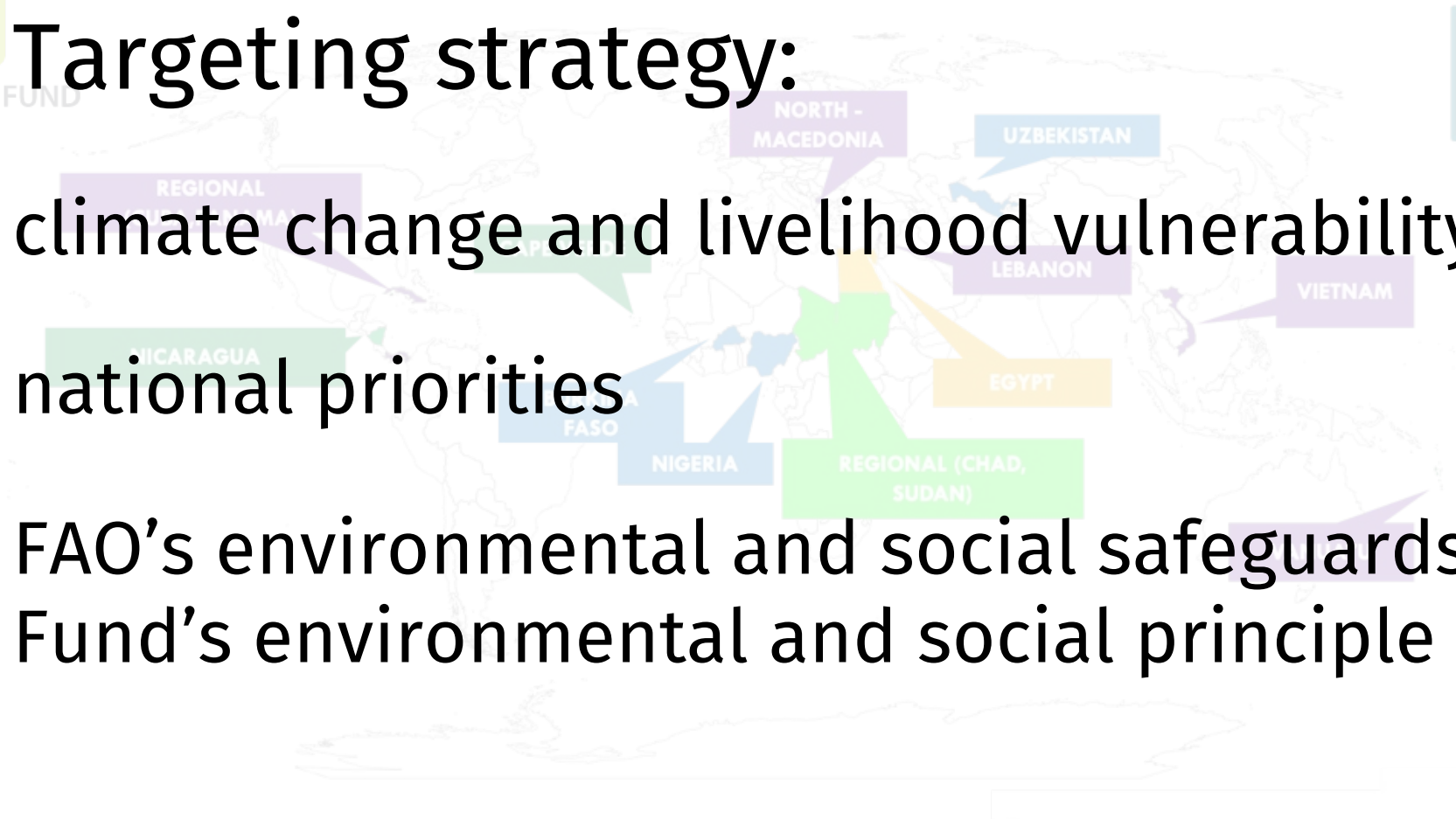
climate change and livelihood vulnerability

national priorities

FAO's environmental and social safeguards, and the Fund's environmental and social principle

Total FAO portfolio
78 549 223 USD

- Concept Notes Approved (Last session)
- Full proposal Approved
- Innovation Concept Note - Approved
- Innovation Concept Note - Under development
- Concept Notes Approved – Full Proposal under development





THE NEED

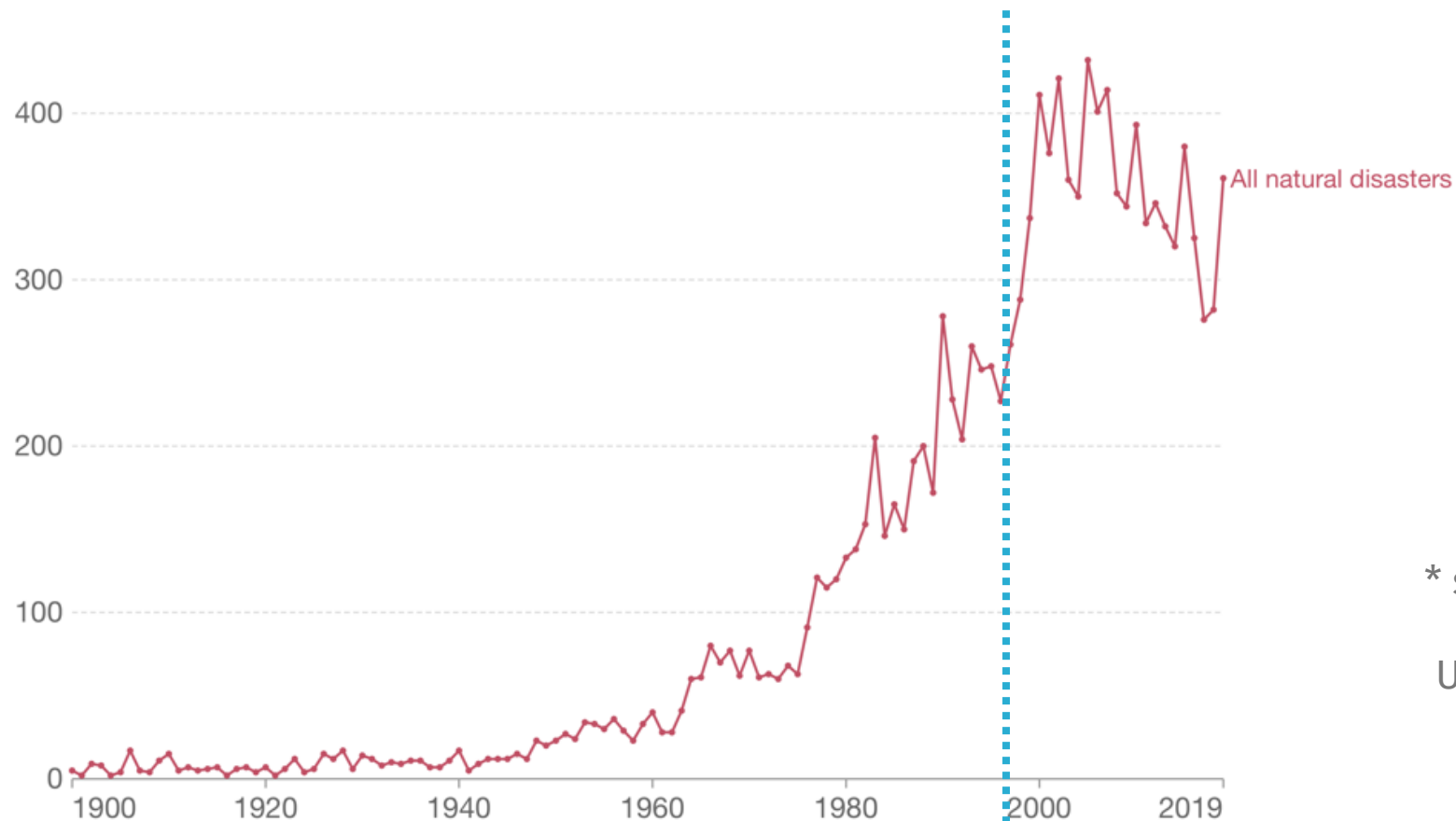
Objective criteria system for selection

Inclusive and dynamic selection method



THE TRIGGER – No time left

Number of recorded natural disaster events (all)



* source: EMDAT (2020): OFDA/CRED International Disaster Database, Université catholique de Louvain – Brussels – Belgium



THE NEED

Objective criteria system for selection

Inclusive and dynamic selection method

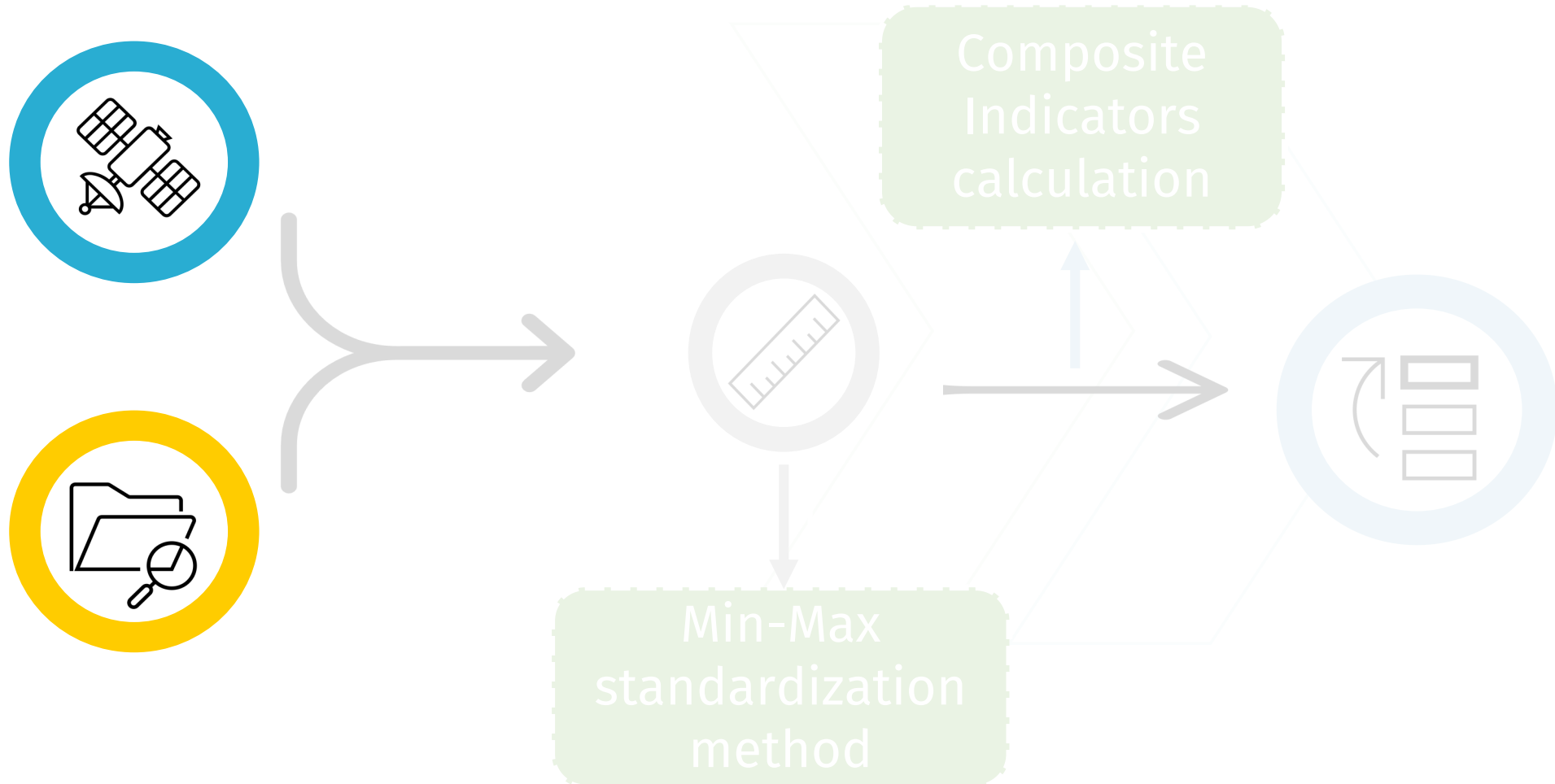
Rapid but accurate assessment

The background is a solid blue color with several white chevron shapes pointing to the right, creating a sense of movement and direction. The chevrons are of varying sizes and are arranged in a staggered pattern.

THE STEPS:
METHODOLOGY



CALCULATION SCHEME - DATA





DATA

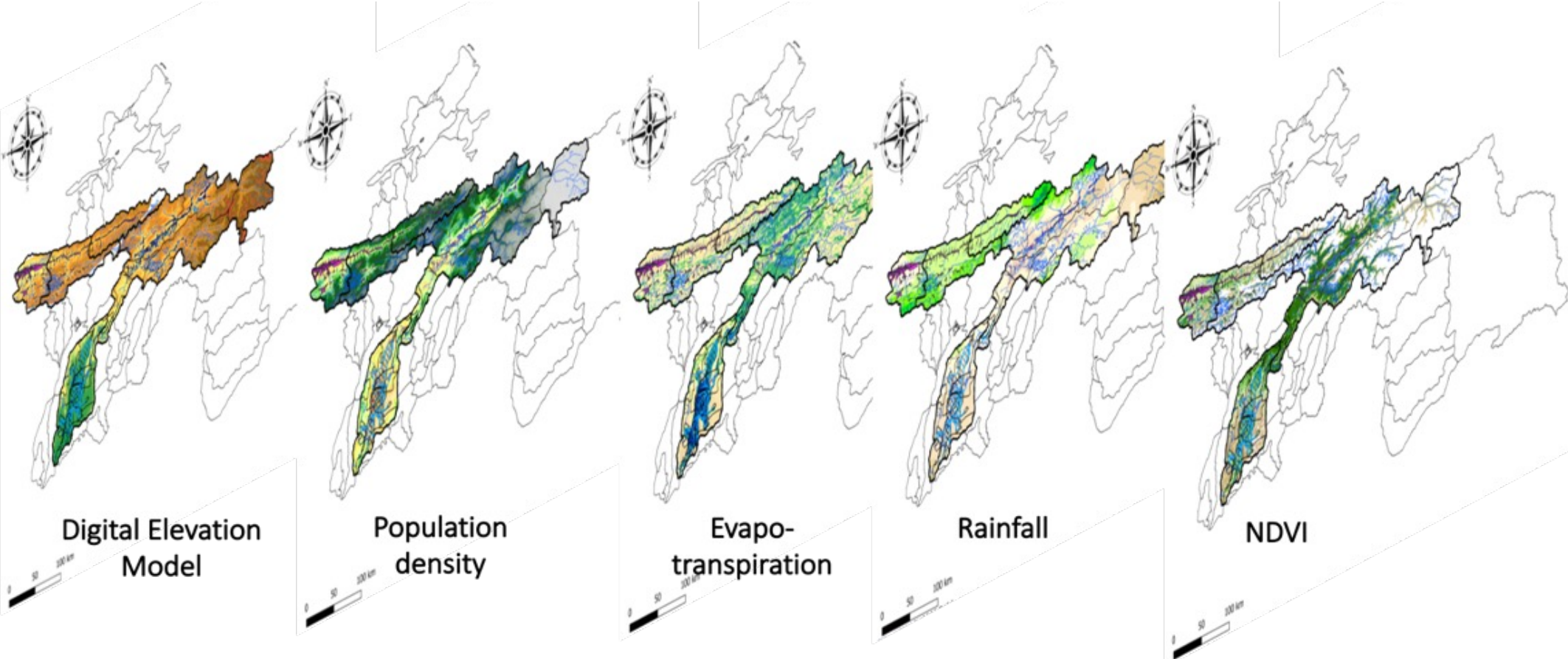
IDENTIFICATION OF BOUNDARIES – DONE BY THE USERS





DATA

FIRST PHASE: GEOSPATIAL DATA AS INDICATORS





DATA

FIRST PHASE: GEOSPATIAL DATA AS INDICATORS

**15 high-resolution layers/indicators
from global references**



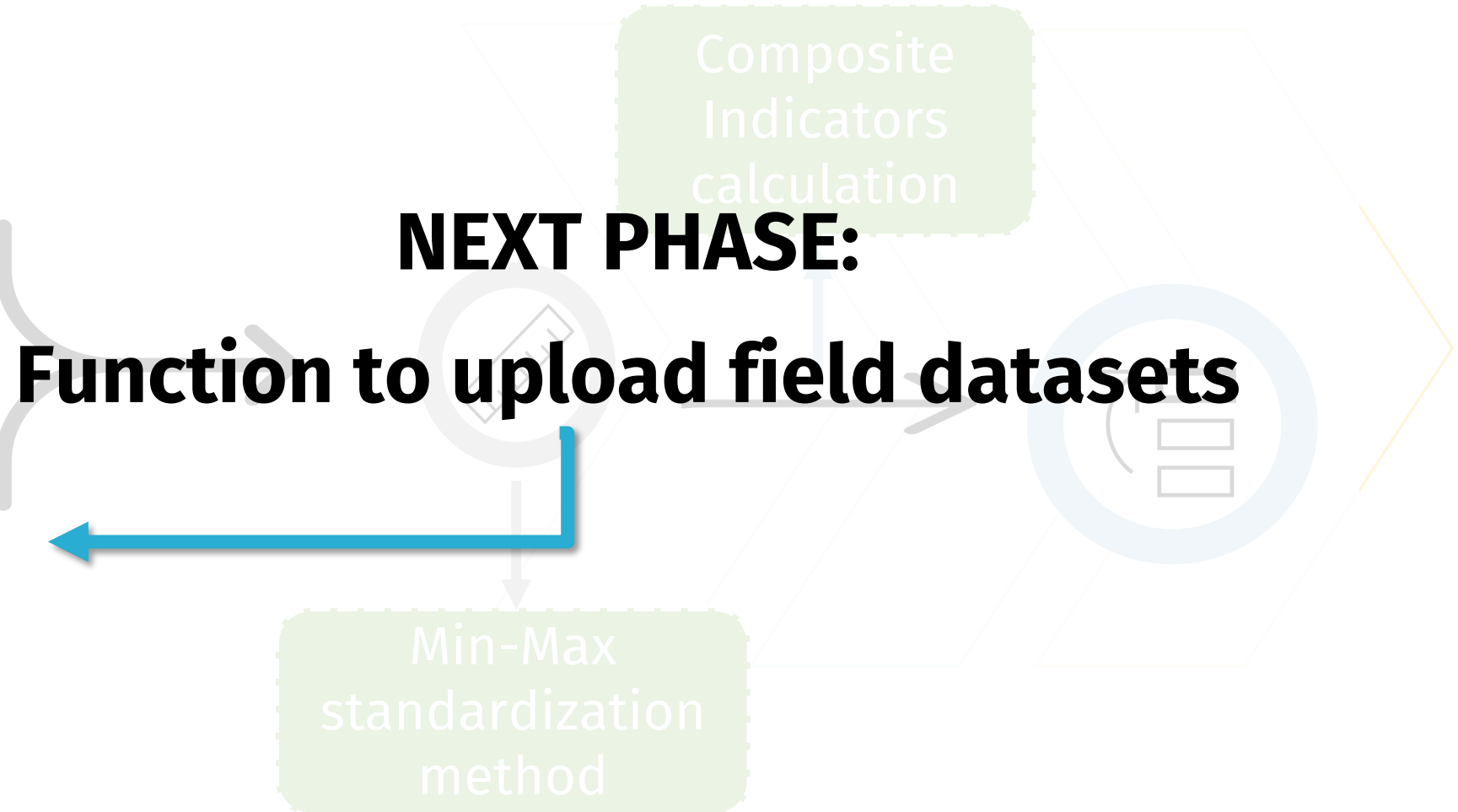


DATA

| TARGET AREA | SCHEME NAME | EC_NDVI | EC_DM | S_PL | S_PDI | S_WI | S_LALU | EN_DEM | EN_EP | EN_LD | EN_AES | EN_ETO | EN_HPA | EN_PA | T_WRC | T_DMS | T_DHS |
|--------------|------------------------------|---------|-------|------|-------|--------|--------|--------|-------|-------|--------|--------|--------|-------|-------|-------|-------|
| Lower Vakhsh | Dangara | 0,33 | 5 | 3,3% | 61% | 7,63% | 0,04% | 673 | 321 | 44% | 50% | 1686 | 22% | 48,42 | -2,08 | 4,24 | 4,71 |
| Lower Vakhsh | Ganjina | 0,28 | 23 | 3,3% | 65% | 9,73% | 0,00% | 454 | 246 | 57% | 18% | 1795 | 11% | 73,03 | -2,36 | 12,90 | 53,09 |
| Lower Vakhsh | Mekhnatabad/Sarband | 0,25 | 18 | 3,2% | 64% | 13,32% | 0,00% | 401 | 250 | 25% | 33% | 1801 | 25% | 66,66 | -3,00 | 15,66 | 47,93 |
| Lower Vakhsh | Pakhtakor/Oghjar | 0,25 | 12 | 1,9% | 24% | 21,24% | 0,00% | 399 | 229 | 43% | 19% | 1805 | 15% | 48,34 | -2,00 | 8,01 | 39,04 |
| Lower Vakhsh | Palvontugay | 0,19 | 0 | 3,4% | 53% | 23,42% | 0,00% | 339 | 187 | 6% | 19% | 1851 | 6% | 11,81 | -1,55 | 21,18 | 21,09 |
| Lower Vakhsh | Samotechniy | 0,34 | 2 | 3,8% | 57% | 5,24% | 0,00% | 468 | 227 | 71% | 39% | 1757 | 27% | 64,17 | 2,00 | 9,48 | 47,24 |
| Lower Vakhsh | Sangtuda | 0,28 | 45 | 2,9% | 64% | 10,11% | 0,00% | 535 | 259 | 50% | 41% | 1726 | 40% | 67,25 | 1,00 | 24,45 | 25,75 |
| Lower Vakhsh | Shurabad | 0,36 | 3 | 3,0% | 63% | 5,46% | 0,14% | 419 | 236 | 41% | 32% | 1755 | 27% | 81,87 | 1,99 | 12,51 | 50,97 |
| Lower Vakhsh | Tigrovaya Balka | 0,26 | 13 | 3,1% | 57% | 10,34% | 21,02% | 335 | 192 | 0% | 21% | 1910 | 0% | 4,37 | 0,71 | 8,86 | 7,26 |
| Lower Vakhsh | Vakhsh | 0,35 | 9 | 2,9% | 57% | 7,41% | 0,10% | 397 | 226 | 67% | 35% | 1777 | 27% | 43,84 | 0,54 | 6,50 | 47,72 |
| Lower Vakhsh | Yanglobod/Garavuti | 0,29 | 16 | 1,5% | 51% | 5,94% | 14,58% | 393 | 204 | 70% | 63% | 1818 | 63% | 32,37 | -1,75 | 18,76 | 29,60 |
| Lower Vakhsh | Yavan | 0,38 | 13 | 3,1% | 74% | 10,84% | 0,00% | 606 | 288 | 76% | 24% | 1712 | 17% | 63,49 | -1,22 | 15,31 | 34,08 |
| Lower Vakhsh | Zigirti | 0,27 | 7 | 3,8% | 69% | 1,80% | 0,00% | 516 | 235 | 17% | 30% | 1754 | 11% | 75,37 | 1,86 | 19,07 | 35,00 |
| Upper Vakhsh | MiddleVakhshGorge | 0,30 | 13 | 3,6% | 47% | 6,04% | 0,00% | 1408 | 356 | 54% | 8% | 1487 | 0,00% | 11,03 | -3,80 | 3,03 | 10,13 |
| Upper Vakhsh | Upper Vakhsh Rogun Reservoir | 0,30 | 27 | 4,1% | 55% | 10,60% | 0,00% | 1476 | 353 | 18% | 0% | 1457 | 0,00% | 14,14 | -1,49 | 1,29 | 1,95 |
| Upper Vakhsh | Lower Obikhingob | 0,29 | 28 | 3,5% | 51% | 10,70% | 0,00% | 1767 | 424 | 9% | 0% | 1397 | 0,00% | 28,95 | -2,53 | 1,08 | 0,51 |
| Upper Vakhsh | UpperObikhingob | 0,22 | 18 | 2,5% | 135% | 6,59% | 0,00% | 2201 | 466 | 0% | 0% | 1284 | 0,00% | 5,61 | -1,54 | 26,64 | 6,38 |
| Upper Vakhsh | Lower Surkhob LB | 0,30 | 24 | 3,8% | 60% | 7,30% | 0,00% | 1640 | 381 | 9% | 0% | 1425 | 0,00% | 12,16 | -1,21 | 0,91 | 0,40 |
| Upper Vakhsh | Lower Surkhob RB | 0,32 | 22 | 4,1% | 61% | 7,71% | 0,00% | 1461 | 403 | 15% | 0% | 1450 | 0,00% | 8,80 | -1,31 | 0,84 | 0,21 |
| Upper Vakhsh | Middle Surkhob LB | 0,27 | 19 | 4,2% | 49% | 7,25% | 0,00% | 1809 | 385 | 14% | 0% | 1383 | 0,01% | 18,52 | 0,74 | 4,49 | 2,87 |
| Upper Vakhsh | Middle Surkhob RB | 0,28 | 38 | 4,3% | 62% | 9,07% | 0,00% | 1646 | 384 | 6% | 0% | 1433 | 0,00% | 10,69 | -0,79 | 8,37 | 9,34 |
| Upper Vakhsh | Upper Surkhob RB | 0,23 | 10 | 3,3% | 33% | 6,77% | 0,05% | 1871 | 343 | 7% | 0% | 1376 | 0,00% | 43,70 | 1,01 | 4,86 | 3,93 |
| Upper Vakhsh | Muksu LB - Upper Surkhob LB | 0,22 | 16 | 2,9% | 25% | 7,29% | 0,00% | 2132 | 329 | 0% | 1% | 1302 | 0,00% | 35,91 | -3,29 | 1,66 | 2,04 |
| Upper Vakhsh | Kyzylsuu RB | 0,23 | 24 | 2,9% | 25% | 6,06% | 0,00% | 2310 | 322 | 1% | 1% | 1285 | 0,00% | 49,51 | -3,95 | 4,83 | 2,40 |
| Upper Vakhsh | Kyzylsuu LB - Muksu RB | 0,18 | 25 | 3,6% | 25% | 8,73% | 0,00% | 1956 | 317 | 16% | 3% | 1361 | 0,91% | 49,34 | -4,00 | 4,81 | 1,87 |
| Zarafshon | Ayni-Dardar | 0,17 | 6 | 2,5% | 24% | 8,2% | 0,00% | 1579 | 769 | 0% | 37% | 1487 | 0% | 21,76 | 2,00 | 6,74 | 21,87 |
| Zarafshon | Changal | 0,19 | 12 | 1,8% | 45% | 3,6% | 34,29% | 929 | 488 | 0% | 0% | 1687 | 0% | 8,13 | -2,00 | 9,07 | 18,86 |
| Zarafshon | Chertuk | 0,21 | 27 | 2,4% | 54% | 4,4% | 0,00% | 1176 | 691 | 3% | 14% | 1546 | 2% | 17,65 | -1,00 | 17,89 | 7,77 |
| Zarafshon | Dam Daryo | 0,23 | 23 | 2,0% | 44% | 4,8% | 1,99% | 974 | 500 | 0% | 8% | 1660 | 1% | 7,87 | -1,00 | 0,70 | 9,95 |
| Zarafshon | Darg-Utagar | 0,16 | 48 | 2,7% | 30% | 10,2% | 0,00% | 1993 | 834 | 0% | 18% | 1395 | 0% | 30,27 | 0,13 | 32,50 | 19,17 |
| Zarafshon | Dekhisor | 0,11 | 35 | 2,9% | 64% | 7,4% | 0,00% | 2616 | 825 | 0% | 0% | 1191 | 0% | 34,82 | -5,00 | 4,38 | 9,07 |
| Zarafshon | Dupula PS | 0,26 | 32 | 1,8% | 54% | 6,3% | 0,42% | 1092 | 604 | 5% | 22% | 1607 | 2% | 18,13 | 1,74 | 14,44 | 6,55 |
| Zarafshon | Eshon | 0,29 | 37 | 1,9% | 54% | 5,4% | 0,00% | 1080 | 637 | 17% | 14% | 1603 | 13% | 14,78 | -1,00 | 10,79 | 2,11 |

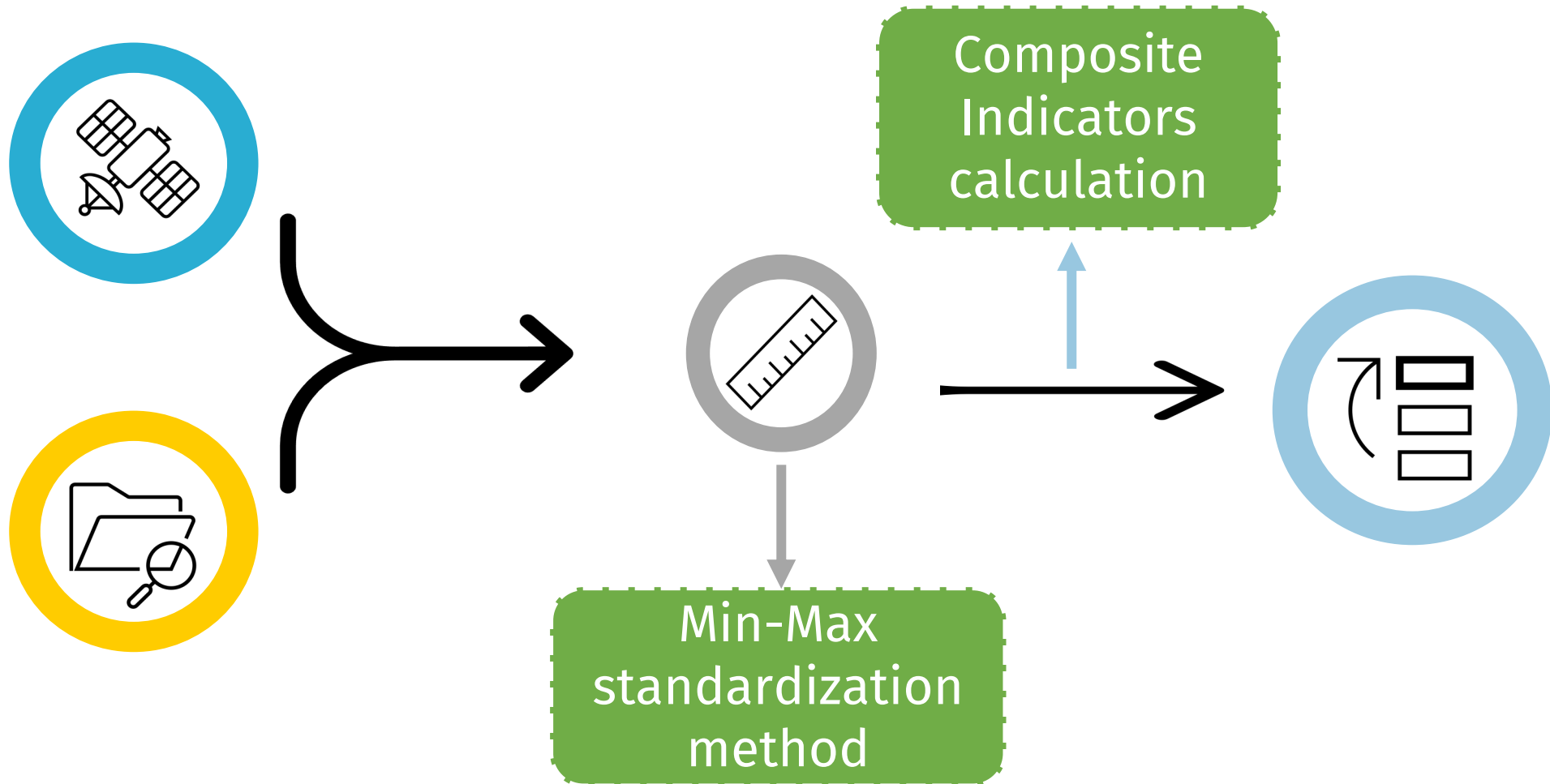


CALCULATION SCHEME - DATA





CALCULATION SCHEME – STATISTICAL METHOD





CALCULATION SCHEME – STATISTICAL METHOD



The background is a solid blue color with several white chevron shapes pointing to the right, creating a sense of movement and direction. The chevrons are of varying sizes and are arranged in a staggered pattern.

THE RESULTS:
APPLICATION AREAS

APPLICATION AREAS

Strategic planning and programming

Need and vulnerability assessment

Project planning and formulation

REQUIRED TIME

2-5 min

from the definition of irrigation system
boundaries

**LET'S SEE
THE TOOL**