Scoring Guidance Principles Based on Attribute Scores

Glossary and formulas for the guiding principles. Each guiding principle is derived from the scores from the limiting attributes described in Table 1. ***Data*** indicates all data-limitations (i.e., # Types, Precision, Bias, Species ID, Spatial, Temporal). ***Resource*** indicates all resource-limitations (i.e., Time, Funding, Capacity, Analysts:Stocks)

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| Guiding Principle | Description | Formula |
| Data training | Train on the collection and preparation of data for use in stock assessment. | avg(Data) {= 3 <3     →3    →avg(Data, Capacity) |
| Improve data | Improve the quality and/or quantity of data, to overcome one or more data limitation attributes (i.e., types, imprecision, bias, species-specific, spatial and temporal limitations). | avg(Data, Analysts:Stocks) |
| Local input | Consider including local knowledge for basic biological understanding and model specifications. | avg(Data){= 3 <3     →3 avg(avg(Data),avg(Resources)) |
| Analytical training | Increase the analytical capacity to undertake quantitative stock assessment through technical training. | avg (Capacity, avg(Data),  avg(Time, Funding, Analysts:Stocks)) |
| Simple methods | Consider applying simple analytical methods for producing quantitative stock status information (as an introductory assessment approach). | avg(# Types, Resource) {= 3 <3     →0    →avg(# Types, Resource) |
| Complex methods | Consider the use of more complex modelling options. | avg(Data) {= 3 <3     →0    →avg(3-avg(Data), 3-avg(Resource)) |
| Improve Mod. Specs. | Consider focusing on increasing the sophistication of analyses to improve data treatment and assessment model specification. | avgData or avgResource  {= 3 <3     →0    →avg(3-avg(Data), 3-avg(Resource)) |
| Static MMs | Consider using static management measures as an introductory management approach. | max(avg(Data), avg(Resource)) |
| Dynamic CRs | Consider using dynamic control rules updated by stock assessments instead of static management measures. | avg(3-# Types, 3-avg(Spatial, Resource) |
| Improve governance | Improve the governance and policy around the data, assessment, and management measures. | avgTime,Funding,Capacity  {= 3 <3     3    →avg(# Types, Species ID, Time, Funding, Capacity) |