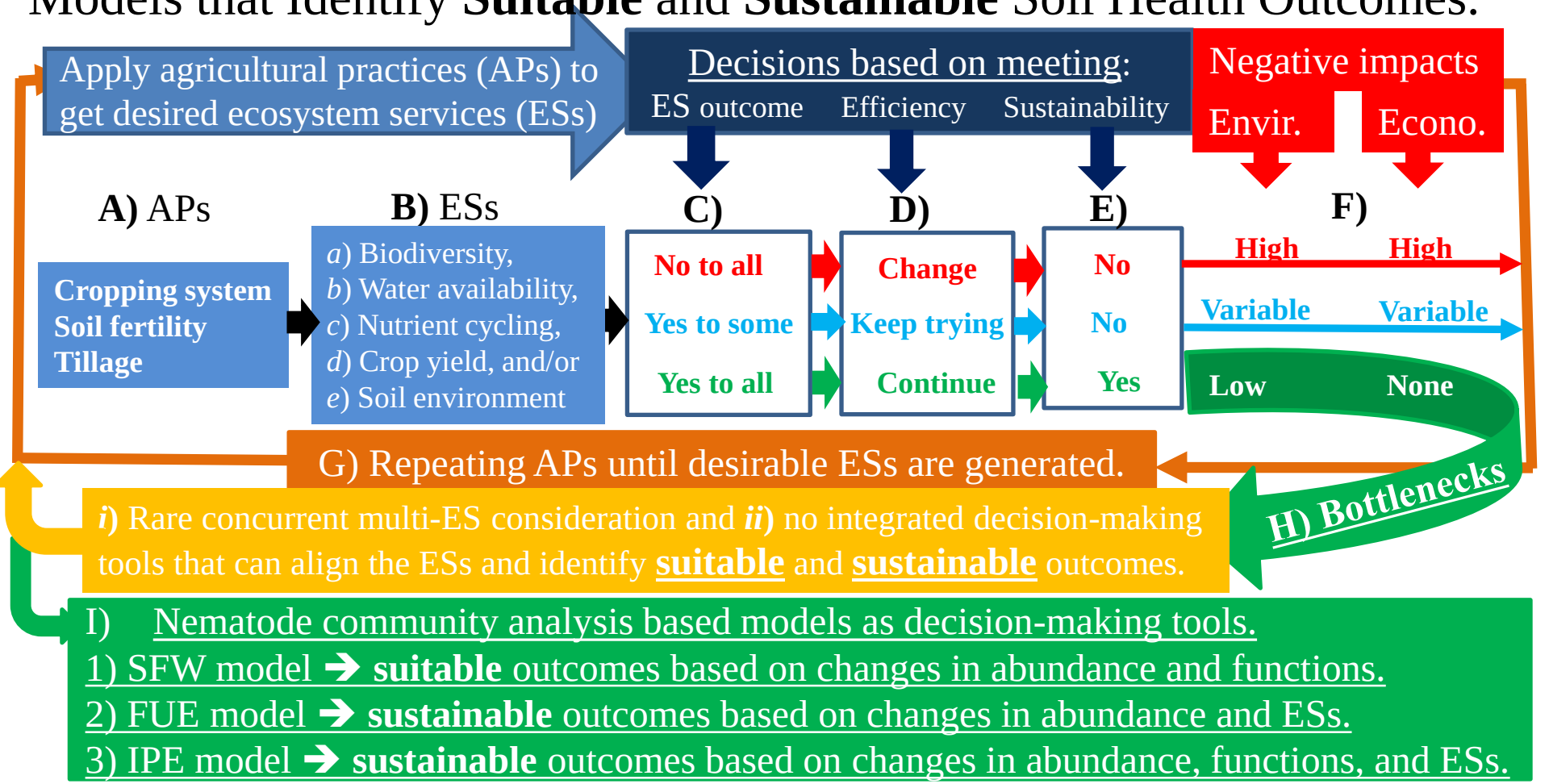
Models that Identify **Suitable** and **Sustainable** Soil Health Outcomes.



Conceptual understanding of the cycle of soil health degradation (A - H) and how the SFW, FUE and IPE models (I) can be the tools to overcome the challenges. APs (A) influence soil health components to generate ESs (B) and management decisions are based on ES outcomes (C) and variable definitions of efficiency (D) and sustainability (F) and without concurrently weighing the environmental and economic impacts (F). When the ES outcome is negative (**red letters and arrows**) or variable (**blue letters and arrows**), the decision often is to repeat until desirable ES outcomes are achieved (G), or continue if ES outcomes are desirable (**green letters and arrows**) without considering the bottlenecks (H) and the cycle of soil health degradation continues. Only when the bottlenecks are overcome is sustainability achieved, but it is rare that multiple ESs are analyzed concurrently in ways that identify **suitable** and **sustainable** soil health outcomes. The SFW, FUE and IPE models can be the step-by-step integration platforms to achieve **suitable** and **sustainable** soil health (I) .