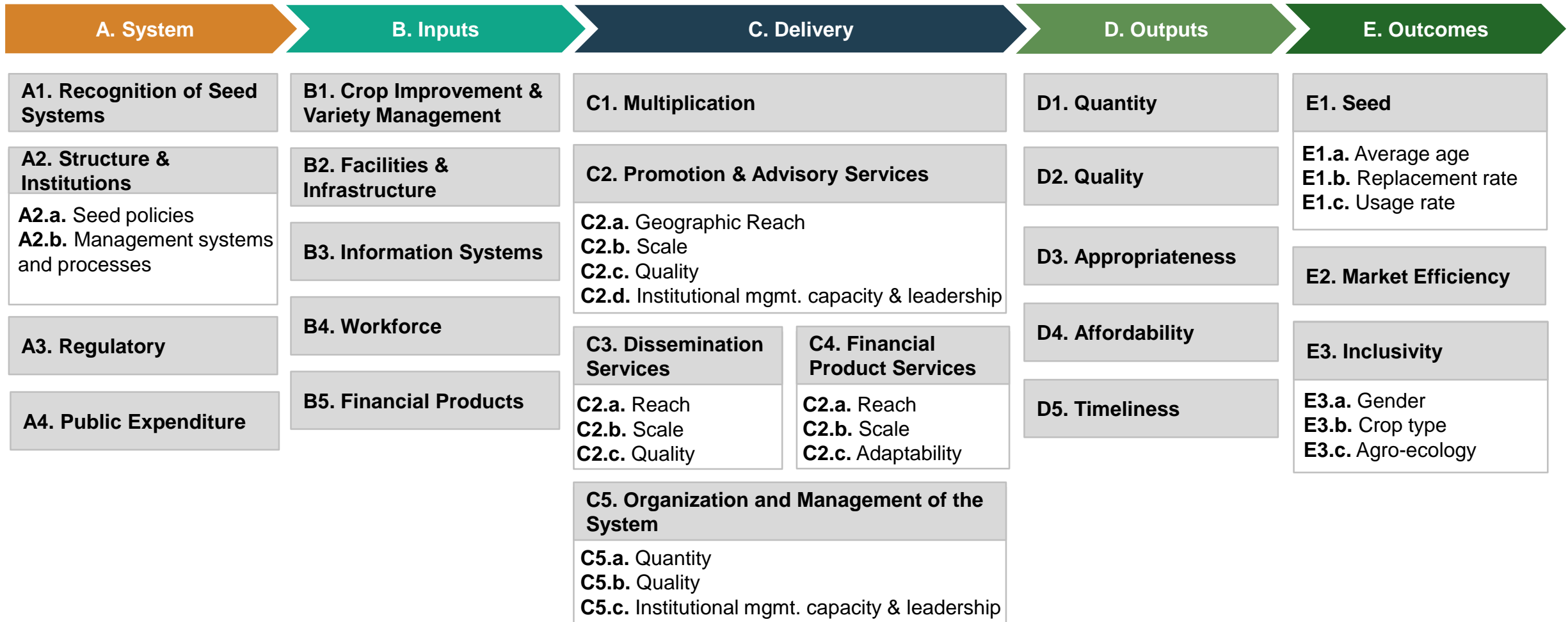


SEED CONCEPTUAL FRAMEWORK

RISE Ag Dashboard

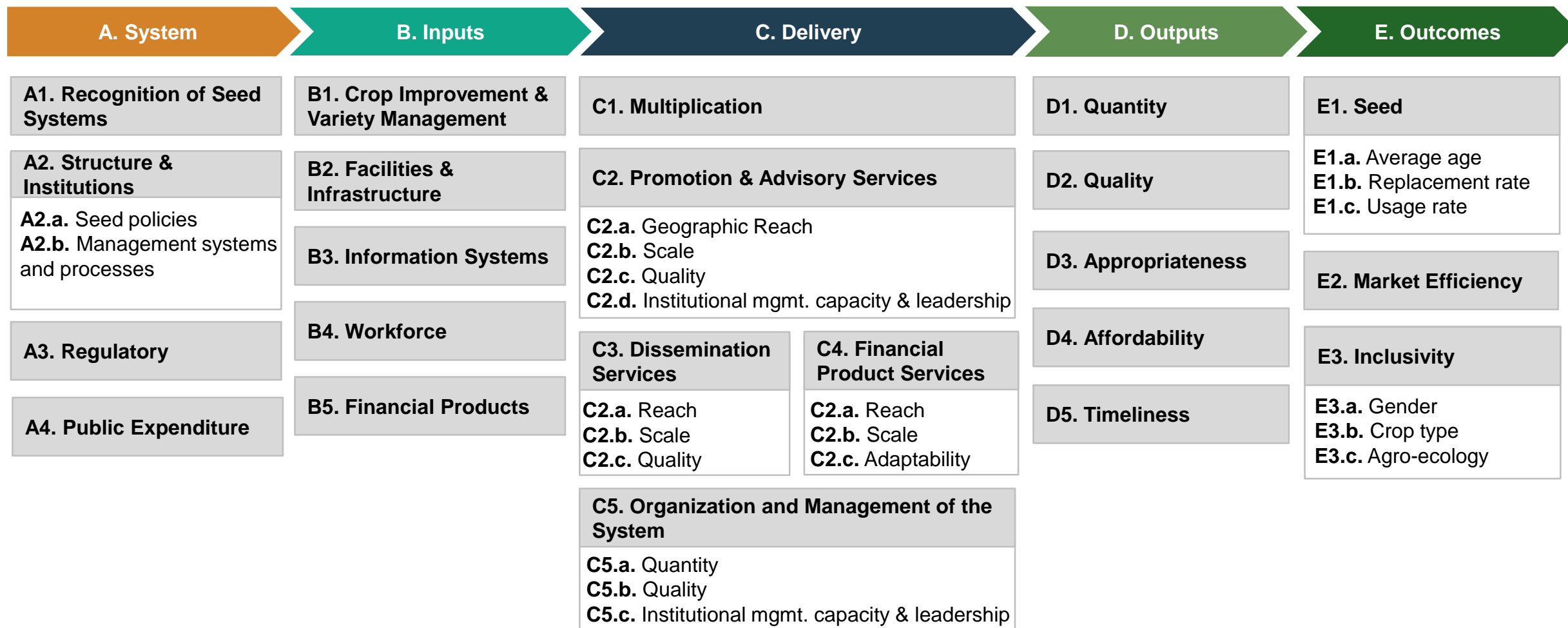
The analytical framework proposes domains and sub-domains that best capture the performance of the seed sector



The domains include detailed definitions that can be best used for guiding indicator identification and selection

Domain	Definition
A. Systems	“What policies, management systems, and processes support the functioning of formal, intermediary and informal seed systems?”
B. Inputs	“What is the status of financial systems, infrastructure, institutional and human resources that support the functioning seed sector?”
C. Delivery	“In what manner are resources organized, managed, and coordinated, and what is the performance of seed value chains to sustainably produce and market quality seed of new, improved and farmer preferred varieties?”
D. Outputs	“To what degree is the quality of the appropriate and new, improved and farmer preferred varieties available to farmers at the appropriate time, place, quantity, price, and of the right quality?” It includes Quantity; Quality; Appropriateness; Affordability; Timeliness.
E. Outcomes	“To what degree are SHFs use quality seed of new, improved and farmer preferred varieties?” Outcomes are influenced by outputs. It includes: Seed Use; Market Efficiency; Inclusivity.

The analytical framework proposes domains and sub-domains that best capture the performance of the seed sector



The conceptual framework proposes indicators based on relevance, availability, and aspiration

A. System

A1. Recognition of Seed Systems

- Recognition of formal, intermediary & informal systems in policies & regulations

A2. Structure, Institutions, Policies, Management systems & processes

- Existence of national seed & other relevant policies (e.g. quality assurance (QA), variety management, seed trade)
- Existence of seed PPPs
- Existence of structure & org for EGS supply, QA, variety mgnt
- Existence of public support to seed educational programs
- Research-extension linkages for variety promotion
- Existence of a system for monitoring seed health

A3. Regulatory

- Index of length of variety management and quality assurance processes (EBA composite)
- Efforts to battle counterfeiting

A4. Public Expenditure

- Public expenditure for public goods & services (breeding, QA, EGS supply, variety management, variety promotion)
- Existence of seed subsidies

B. Inputs

B1. Crop Improvement & Variety Management

- Weighted ratio of varieties released in last 3 years/crop types
- Availability of EGS classes
- Ratio of yield improvement of newly released varieties (<5 yrs released)/varieties dominant in the market (>80%)/crop types

B2. Facilities & Infrastructure

- Weighted ratio of top 5 seed comps/market share/crop types
- Avg performance Access to Seed Index present top 5 seed comps
- Ratio of foundation seed produced by private sector (operating at scale)/national supply / crop types
- Existence of facilities for breeding, quality assurance, EGS supply, variety management, extension, etc

B3. Information Systems

- Existence of an information management systems of public and private producers to forecast seed demand accurately

B4. Workforce

- Ratio of # of seed inspectors/volume certified & QDS seed (gender segregated)
- Ratio extension workers/SHFs (GS)
- Ratio active breeders/crop types/SHFs (GS)
- Existence of higher education seed programs
- Existence career pathways for seed personnel

B5. Financial Products

- Availability of financial products for SHFs, seed comps/ producers, agro-dealers

C. Delivery

C1. Multiplication

- Ratio of quality seed produced by seed companies and producers/national seed demand/crop types
- Ratio of quality seed produced of varieties released < 15 yrs/national seed demand/crop types

C2. Promotion & Advisory Services

- Geographic Reach, Scale, Quality, Institutional mgmt., capacity & leadership
- Quantity & quality of advisory services relevant to supporting farmers' seed production

C3. Dissemination Services

- Ratio of # of agro-dealers, traders or other distributors/SHFs
- % of seed produced and sold by private sector (incl. seed producers) as part of the total seed in market (incl. government and NGOs)

C4. Financial Product Services

- Quality of financial products for SHFs to access quality seed

C5. Org & Management of System

- Existence of a national seed platform of stakeholders
- Existence of well performing national seed trade association
- Average cost for inspection per unit/crop type

D. Outputs

D1. Quantity

- Availability of seed in small packages/crop types
- Weighted ratio of seed volumes in various quality classes/national seed demand/crop types
- Ratio genuine/counterfeit seed

D2. Quality

- Weighted ratio health and cleanliness of seed/seed in market
- Ratio genetic purity/seed in market
- Ratio true to type seed/seed in market
- Value of germination/vigor of seed in the market

D3. Appropriateness

- Weighted ratio for varieties released last 5 yrs with specific traits for bio/abiotic stress factors/total # varieties released/crop types
- # of agro-ecologies/varieties

D4. Affordability

- Weighted ratio of farmer WTP to average seed price/crop types
- Average margin-above grain/produce price of seed/planting material/crop type

D5. Timeliness

- Quantity & quality available by relevant time of year

E. Outcomes

E. Seed/Market efficiency/inclusivity

- Average age
- Average age of varieties in SHF fields/crop types
- Proportion of SHFs segregated by gender growing varieties < 15 years after release
- Replacement rate
- Variety replacement rate in SHF fields/crop types
- Annual seed refreshment rate in SHF fields
- Usage rate
- SHF's use of quality seed of new, improved and adapted varieties (gender segregated) / crop type
- SHF's segregated by gender use of quality seed of new, improved varieties across various crops
- SHFs' segregated by gender use of new improved varieties across dissimilar agro-ecologies
- SHFs' use of genuine seed/crop types
- Yield increases in farmer's fields by use of quality seed of improved varieties

Short list of indicators (just example)

