Common approach to the Scenarios building in Central Asia

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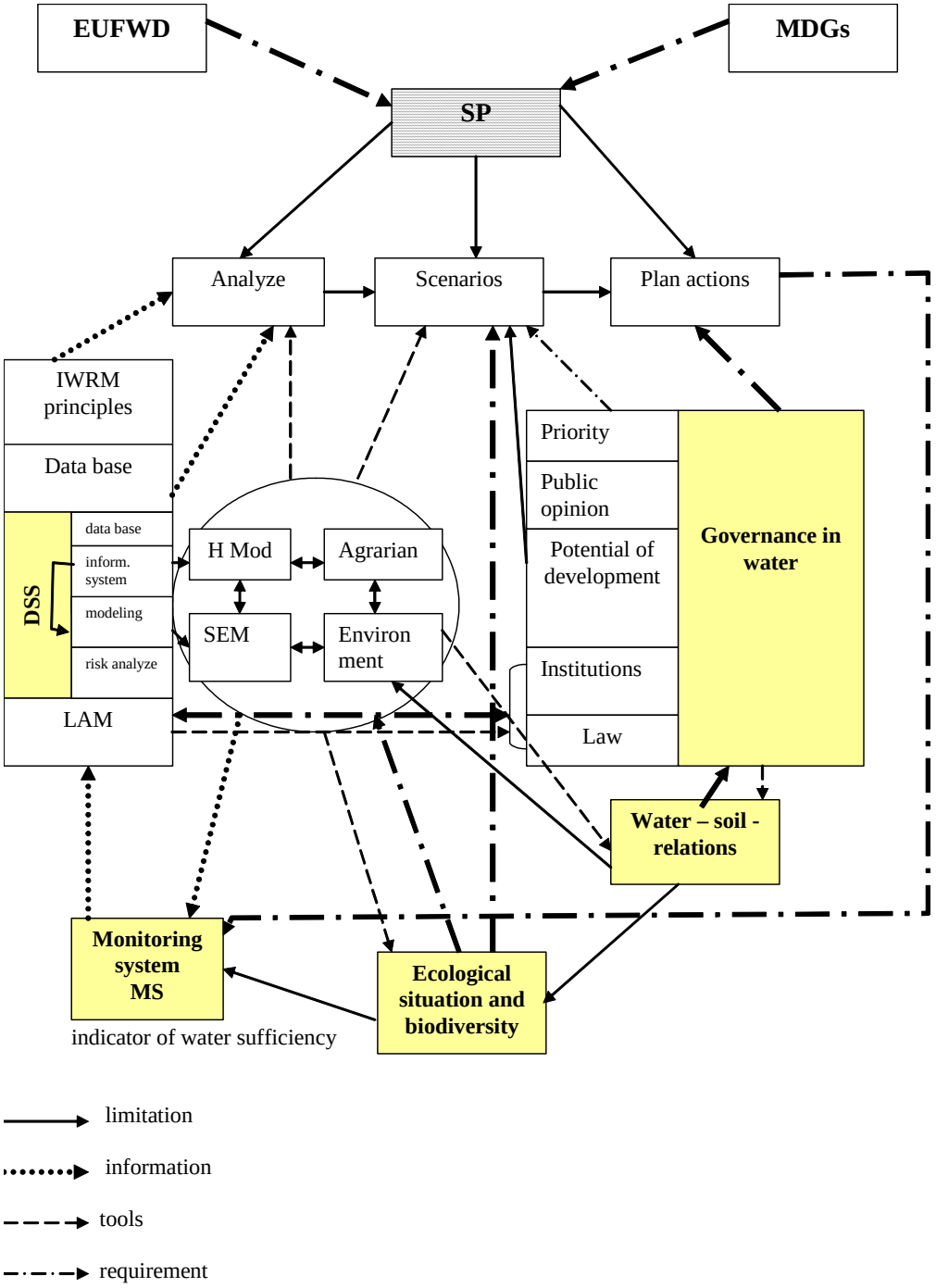
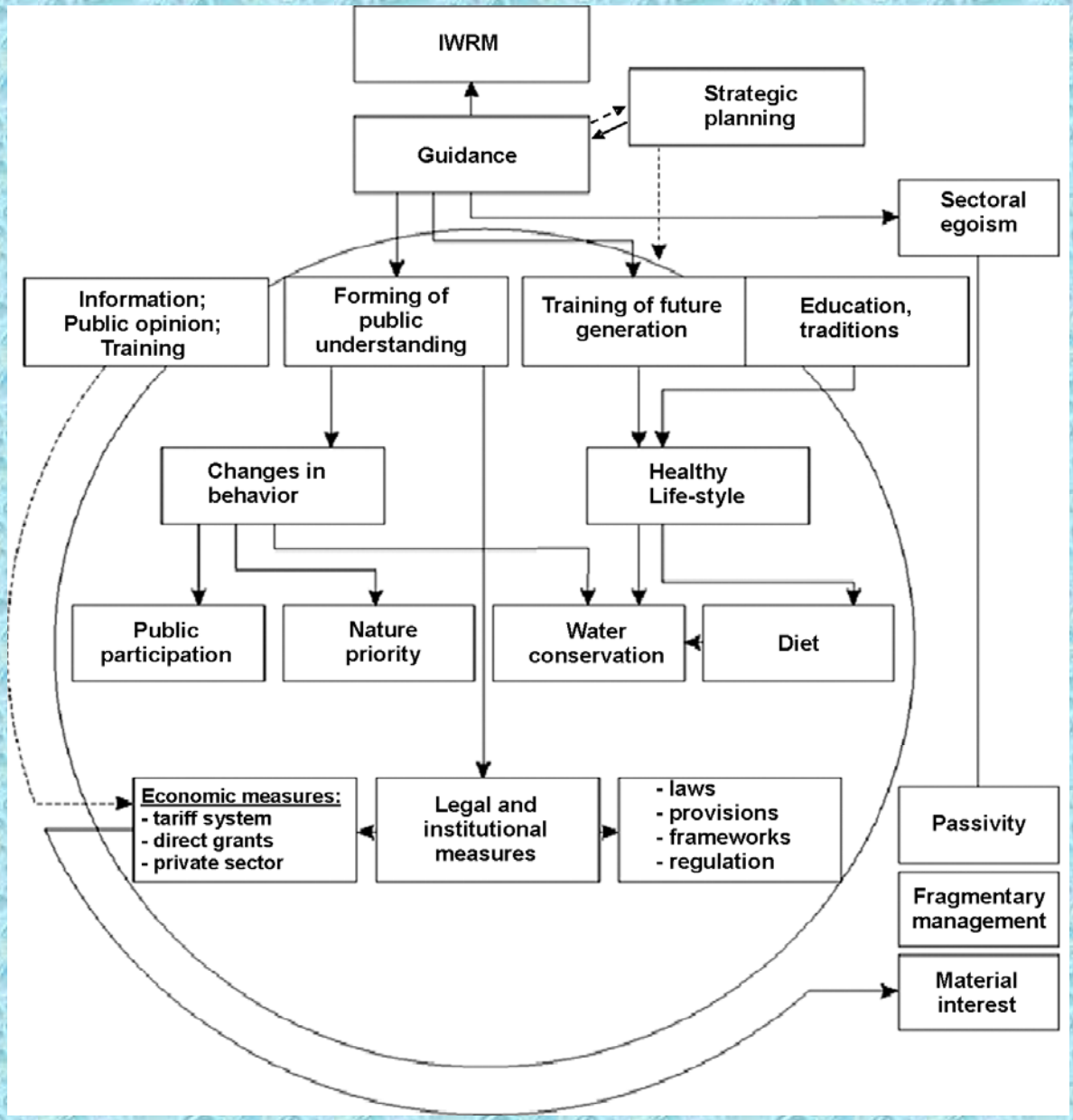


Scenarios as a part of SP


IWRM
Strategic planning
Guidance
Sectoral egoism
Information; Public opinion; Training
Forming of public understanding
Training of future generation
Education, traditions
Changes in behavior
Healthy Life-style
Public participation
Nature priority
Water conservation
Diet
Economic measures:
- tariff system
- direct grants
- private sector
Legal and institutional measures
- laws
- provisions
- frameworks
- regulation
Passivity
Fragmentary management
Material interest

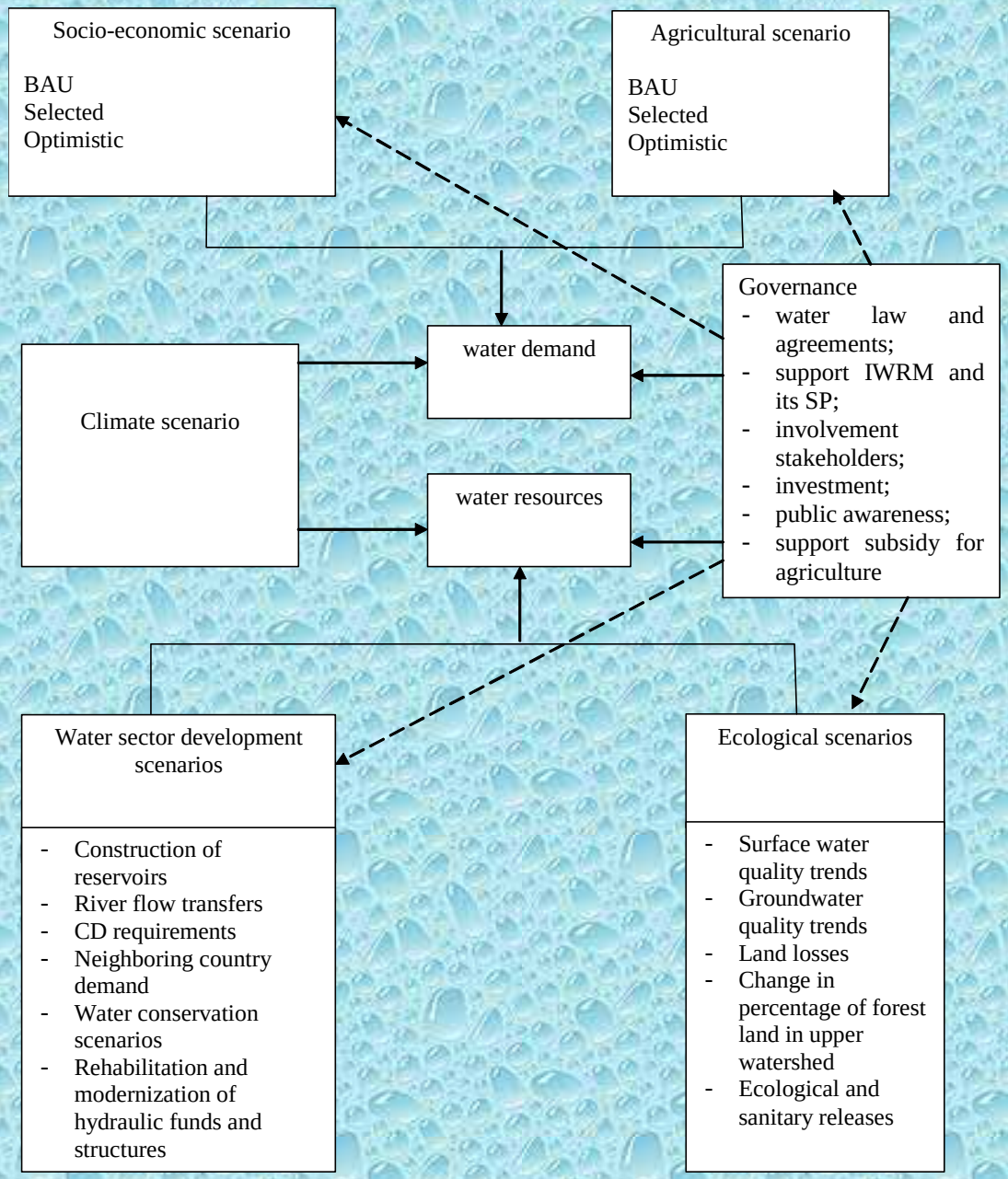
Driving forces and policy measures. Analytical survey

- assessment of the environment
- assessment of present water conditions
- identification of destabilizing factors
- assessment of existing and used material, financial and other resources
- evaluation of available water development
- assessment of institutional and legal aspects
- identification of the key challenges of future development

Role of governance

- expression of understanding and political will by the government and parliament regarding fundamental issues of water and environmental development;
- attitude to transition to IWRM;
- involvement of decision makers on inter-sectoral basis in solution of those issues;
- public awareness and involvement in management;
- readiness for legal, institutional, and financial changes;
- readiness for financial support of water-management measures and strict adequacy of economic climate to rational water use.

Scheme of interlinks between specific scenarios



Future socio-economic development is determined by a few key lines that are characterized by the following indicators:

- demographic indicators (growth, morbidity, migration, employment);
- gross national income and its growth rates;
- gross domestic products and its growth rates;
- change in industrial production volume;
- change of energy demands and requirement;
- change in volume of service sector output;
- capital investments, including local, loans, foreign;
- degree of provision with public utilities;
- degree of provision with sanitation facilities;
- degree of provision with gas supply;
- capacities to meet national food demand.

Agricultural development

- growth of all used agricultural lands;
- growth of irrigated land;
- use of all agricultural lands and possibilities of their improvement;
- use of irrigated lands and possibilities of their improvement;
- crop yield changes;
- change in economic land productivity;
- crop patterns;
- livestock production;
- change in profitability of agricultural production;
- change in volume and profitability of associate sectors and processing sectors, possibilities of their development;
- change in fish production volume.

Ecological scenarios, including natural resources change need to be analyzed per trend:

- trends of surface water quality and their impact on water quantity if qualitative indicators exceed maximum concentration limit;
- the same trends for groundwater;
- possibility of loosing agricultural land due to salinization, water-logging and other natural phenomena;
- changes in percentage of forest land in upper watershed and probable effect on water availability and hydrological runoff regime.

Specific driving forces for countries in transition

1. Socio-economic scenario

a) Demography:

- ✓ Transnational migration of population;
- ✓ Internal migration – urban - rural;
- ✓ Internal zonal migration;
- ✓ Resettlement of qualified staff.

b) Macroeconomics:

- ✓ State priorities;
- ✓ Industrial decline and available non-used capacities;
- ✓ Transport availability;
- ✓ Investment possibilities;
- ✓ Foreign investments;
- ✓ Investment climate;
- ✓ Internal market and internal prices.

Agricultural development

- Public policy on restructurization and planning;
- Agricultural support;
- Water and irrigation priorities;
- Possibility and wish to reclaim and develop irrigated lands;
- Family support;
- Service and market infrastructure establishment;
- Extension service;
- Price and tax system;
- Link with the world food market;
- Ratios between market and purchasing prices.