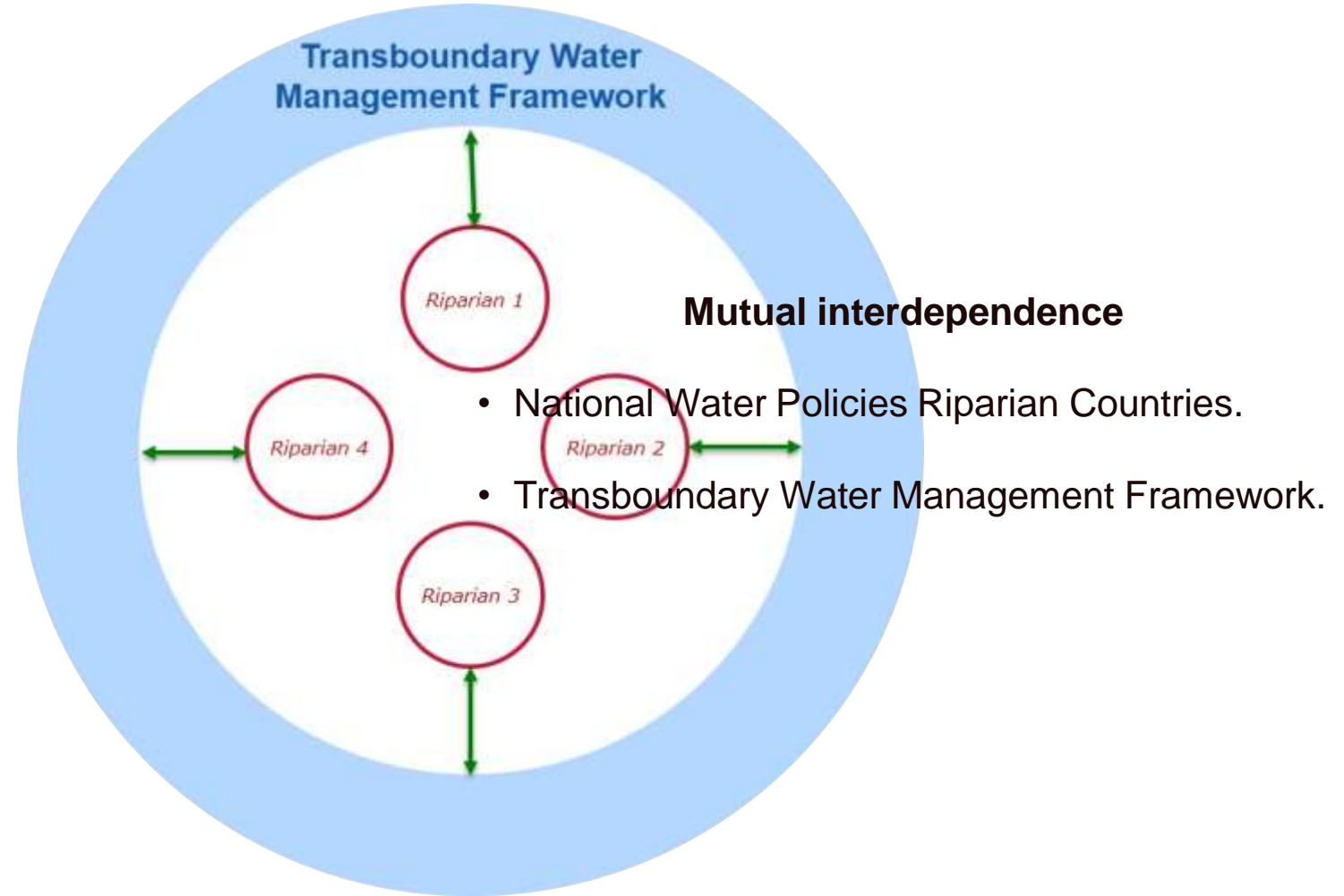


Transboundary water conflict resolution mechanisms Toward convergence between theory and practice

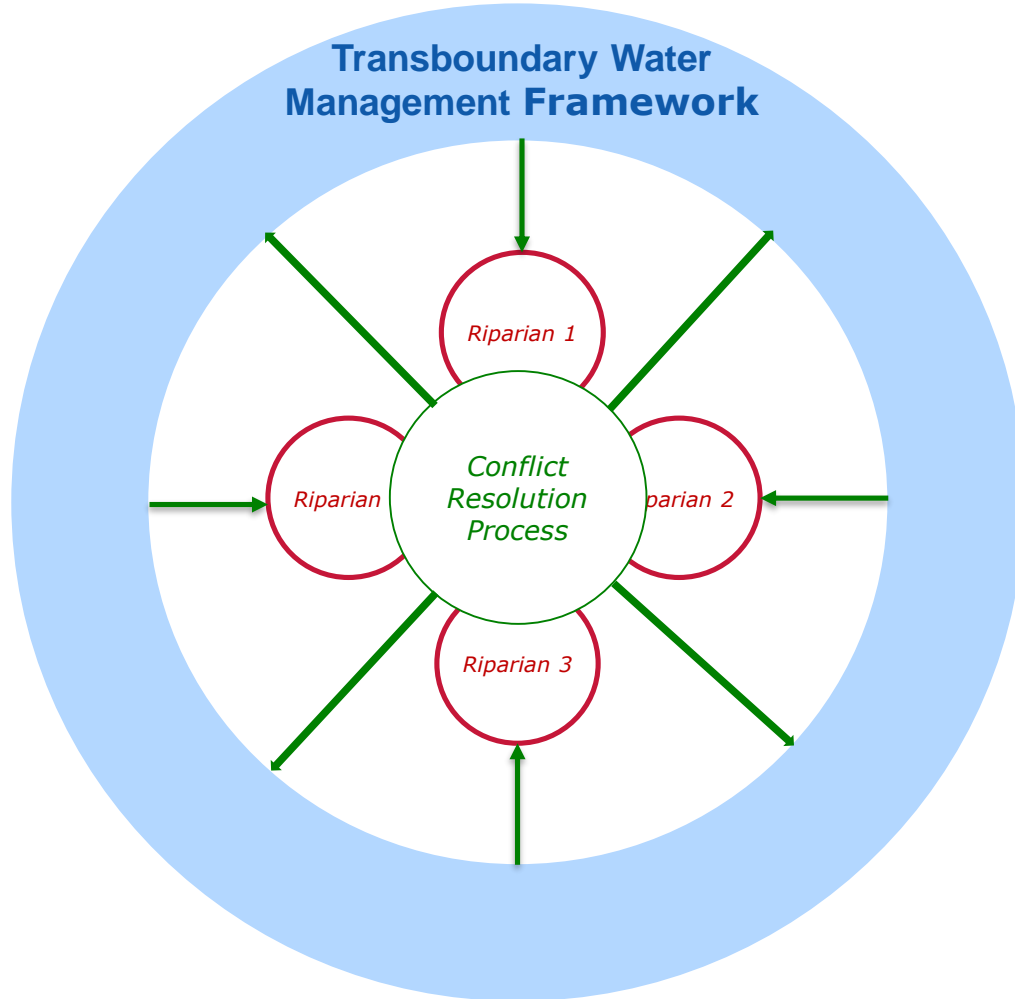
Ahmed Tayia & Kaveh Madani
Centre for Environmental Policy



Research Objectives

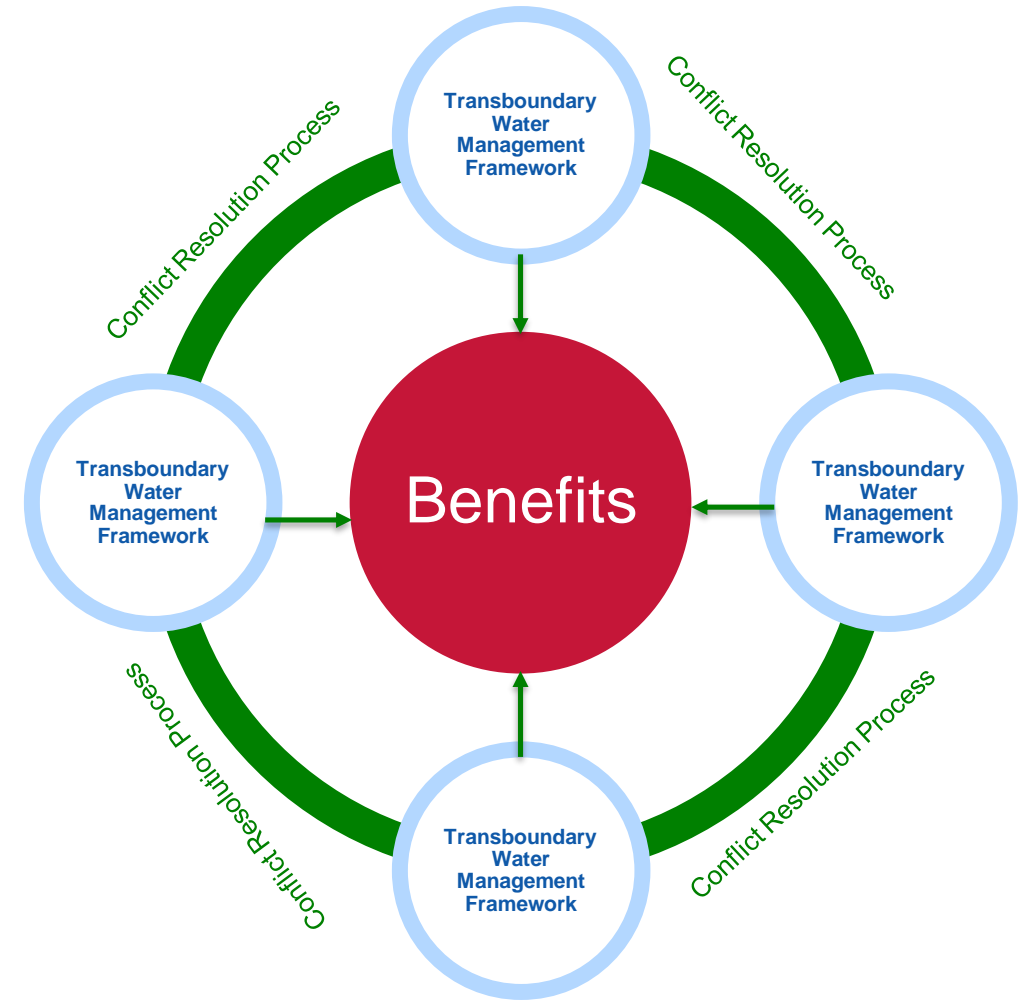
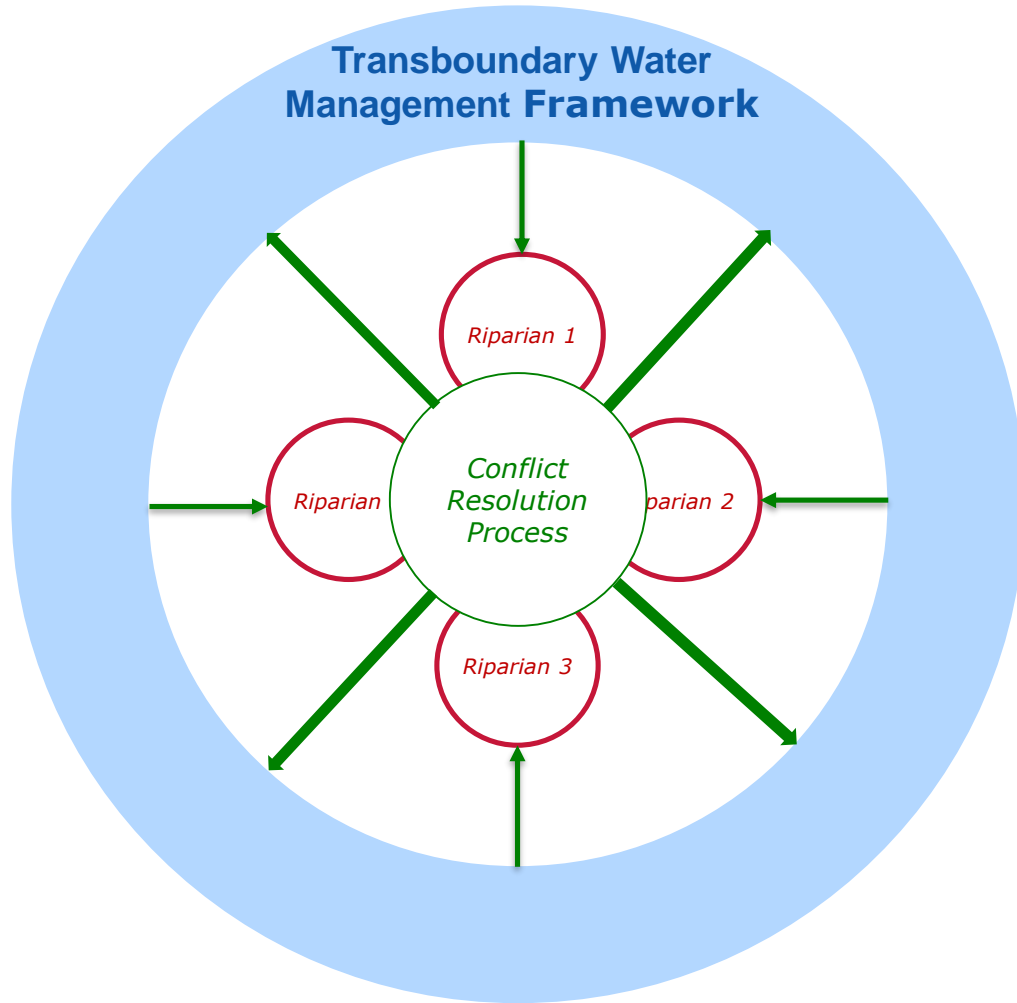


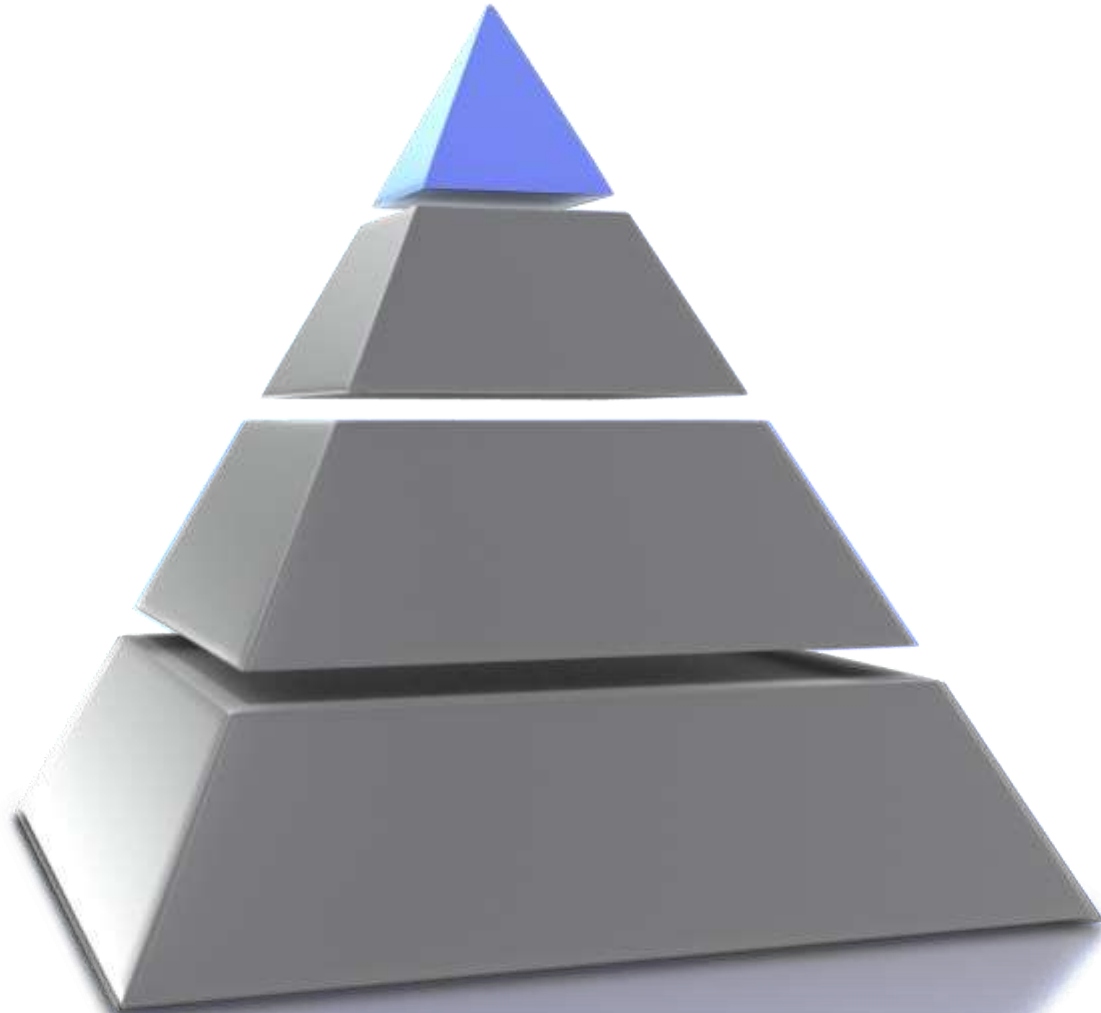
Research Objectives



2. Conflict resolution water management transboundary distribution management benefits to the national water policies of riparian countries.

Research Objectives





Mechanism

A scientific representation of a social process that produces set of changes from initial conditions to terminal conditions under particular environmental constraints.



Transboundary Water Resources Conflict Resolution

A multidimensional process that aim to facilitate a constructive social change among water-sharing countries

A situation in which parties perceive that they have mutually incompatible goals

*Transboundary Water Resources
Resources – Sovereignty – Survival*

Analytical Framework

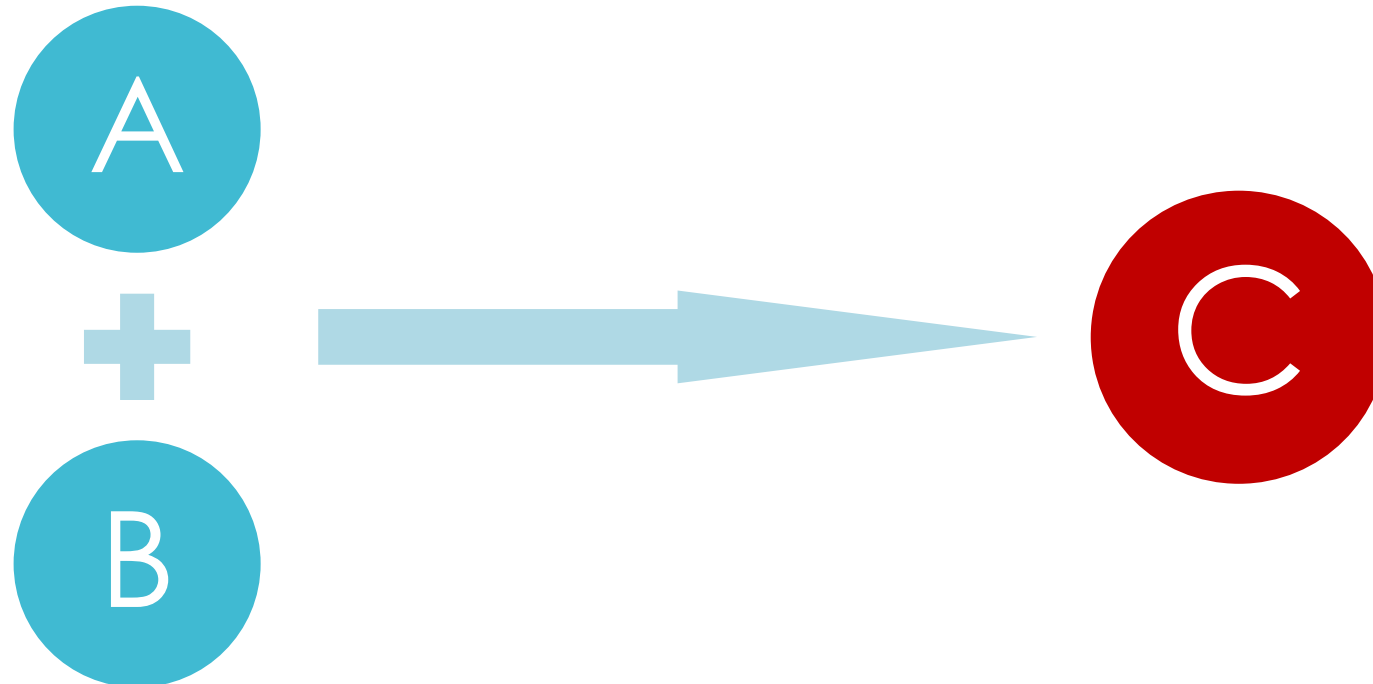
Mechanism

The process dynamics, operation and outcome are determined by:

- Entities and activities involved
- Physical, economic, legal, social and psychological constraints of this process.

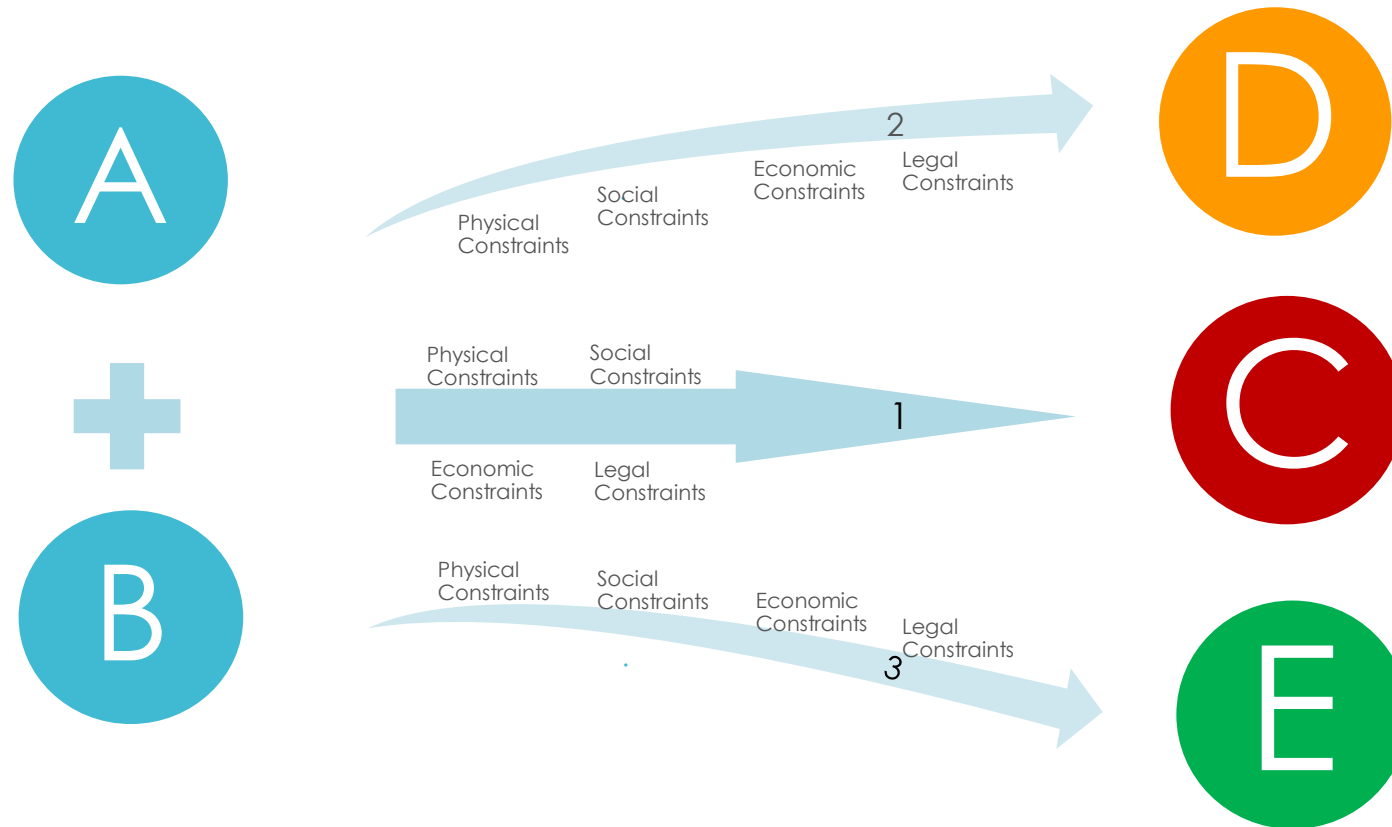
Analytical Framework

General Covering Law

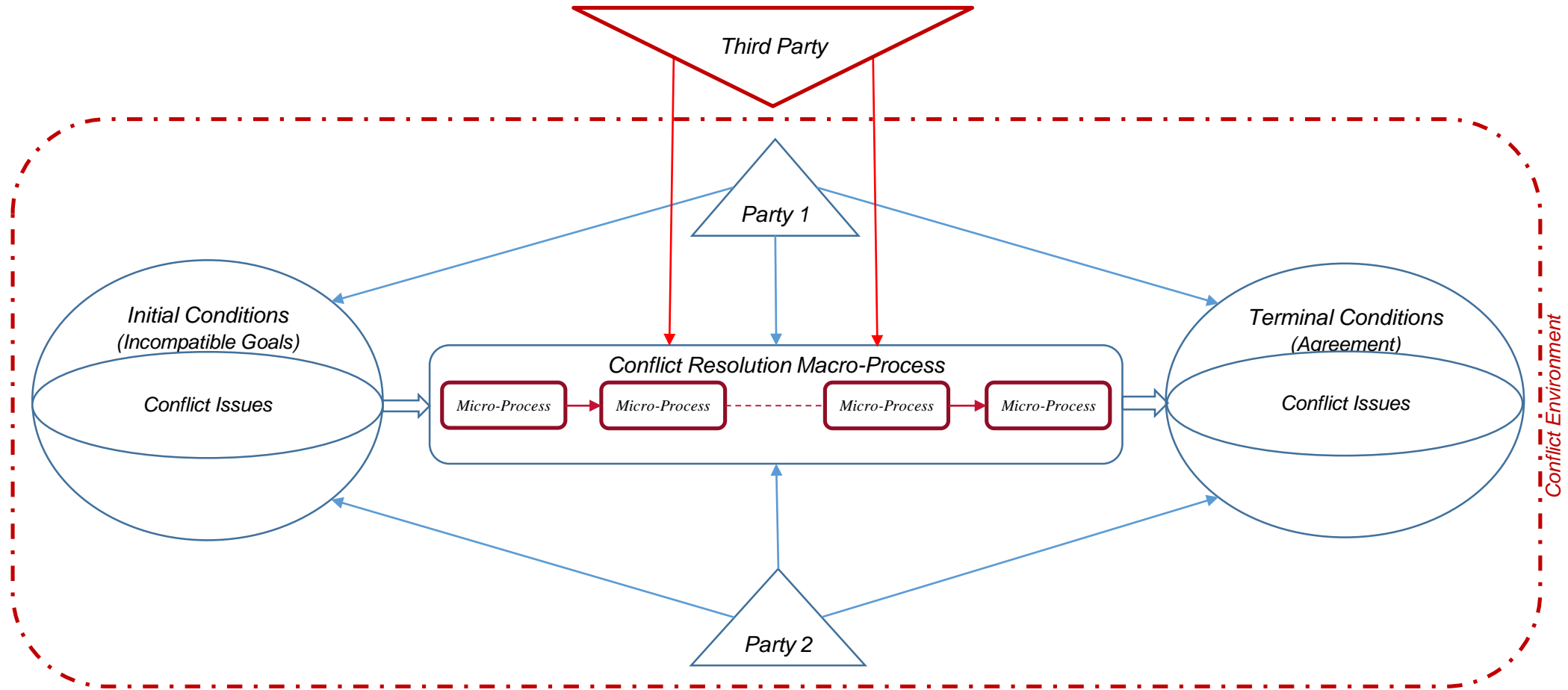


Analytical Framework

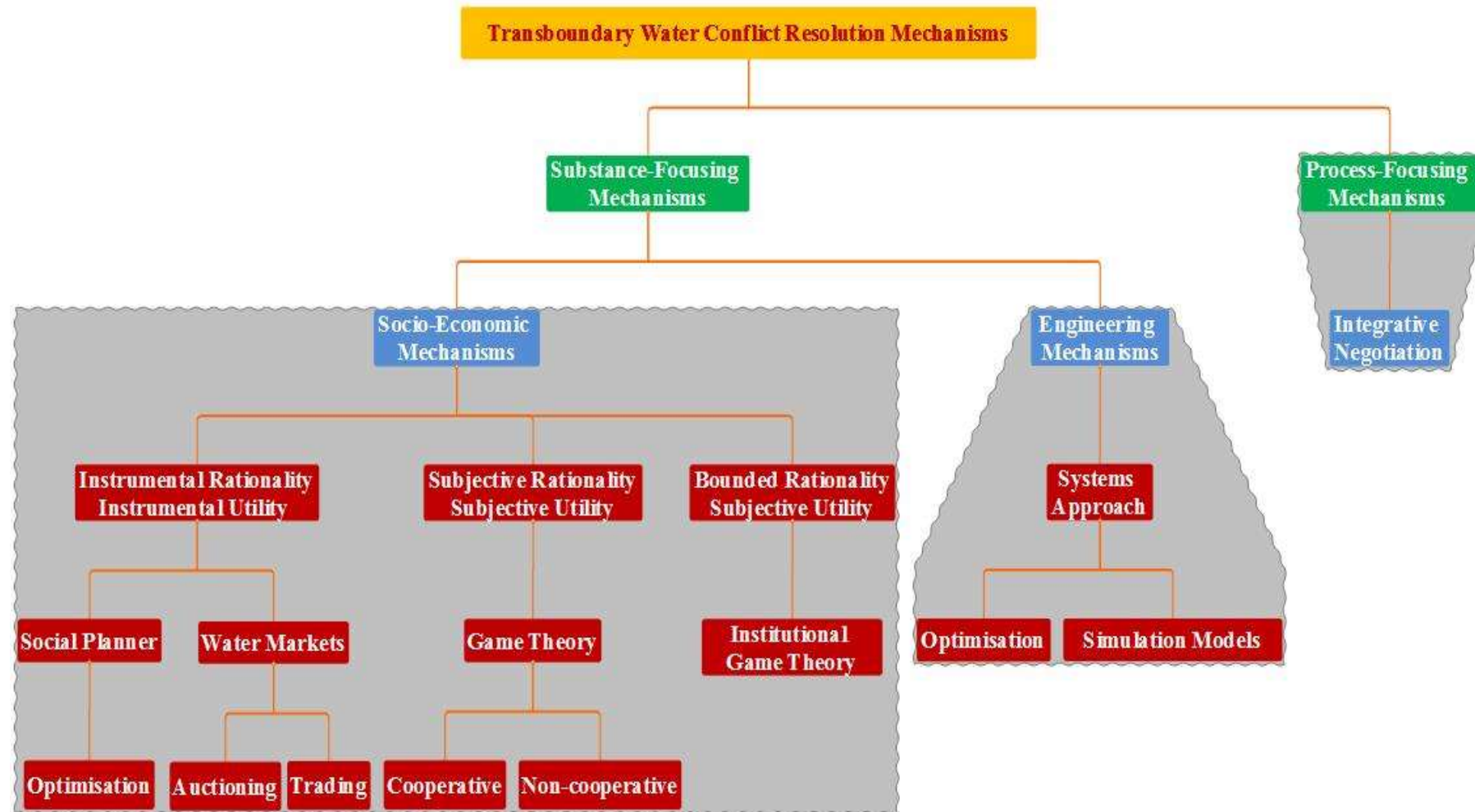
Mechanism



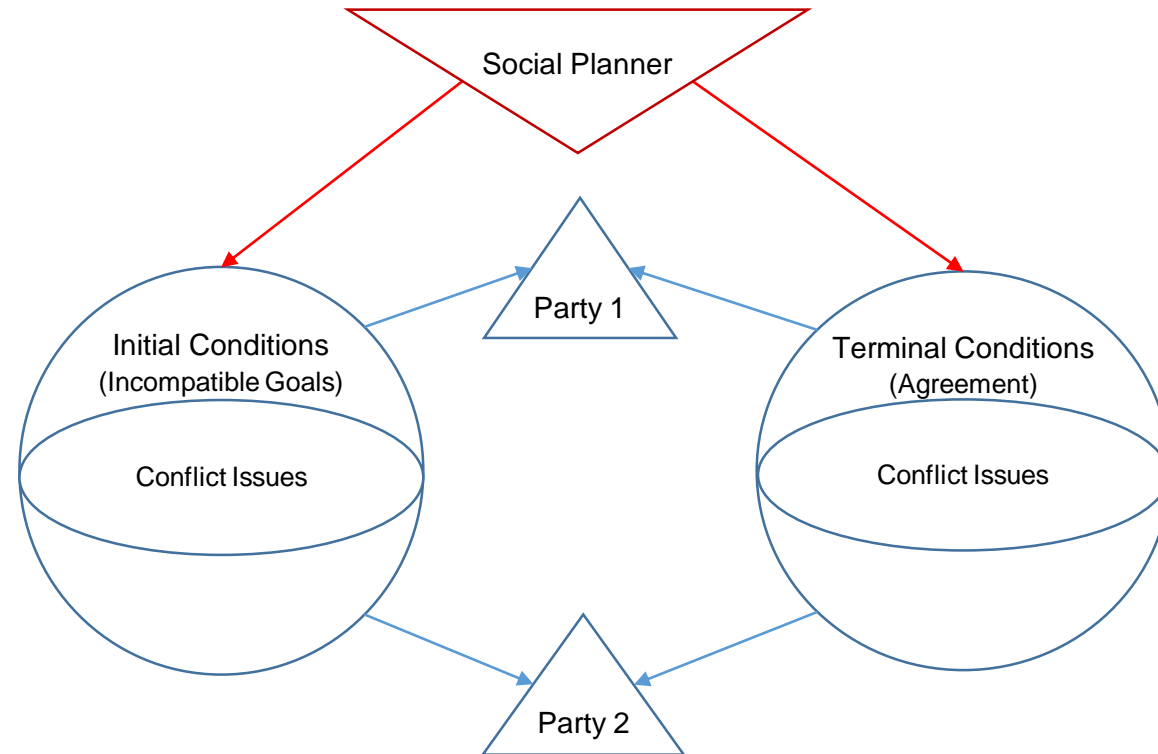
Transboundary Water Conflict Resolution Mechanism



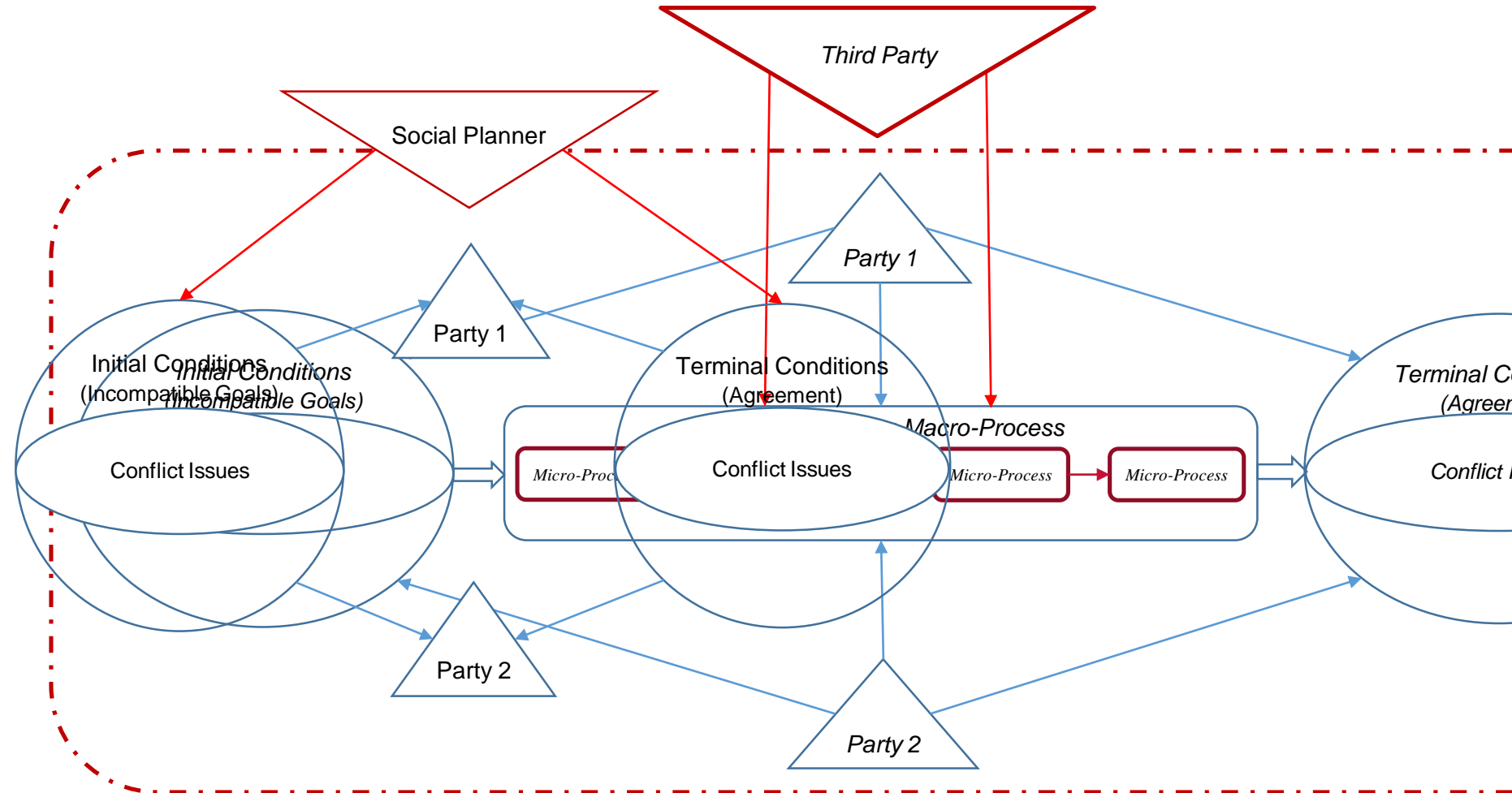
Transboundary Water Conflict Resolution Mechanisms



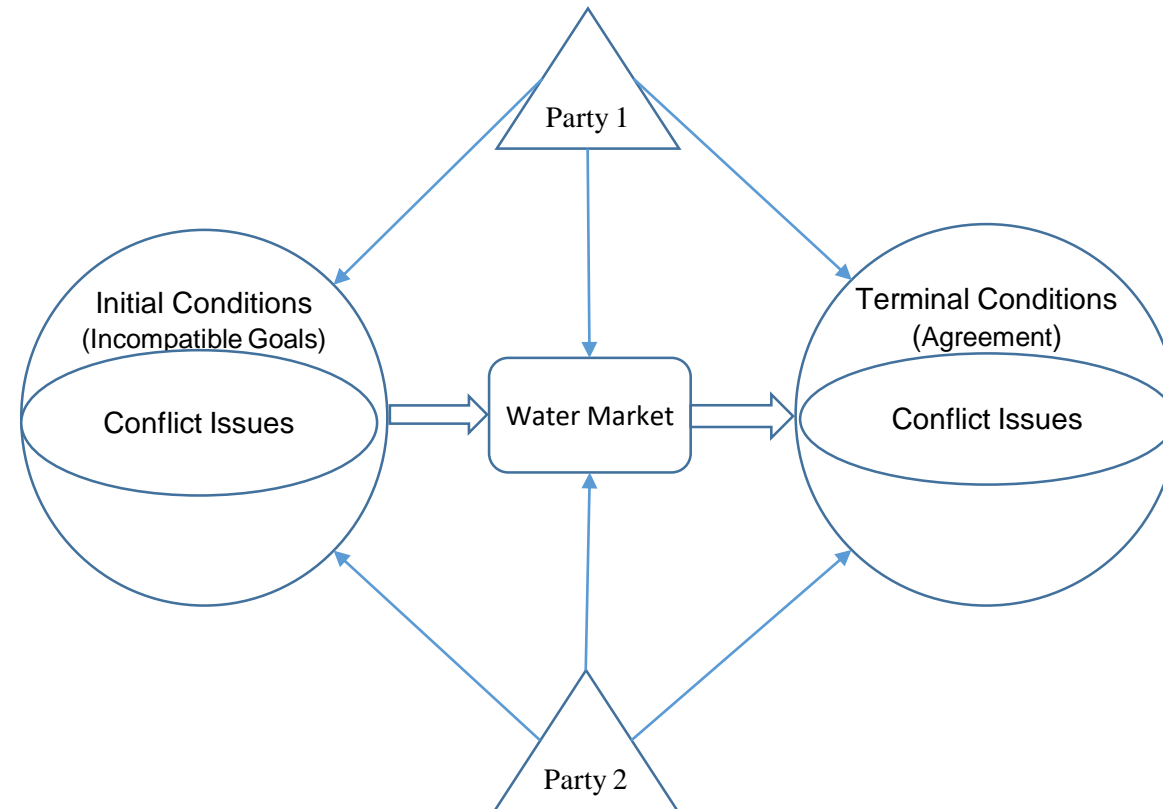
Social Planner



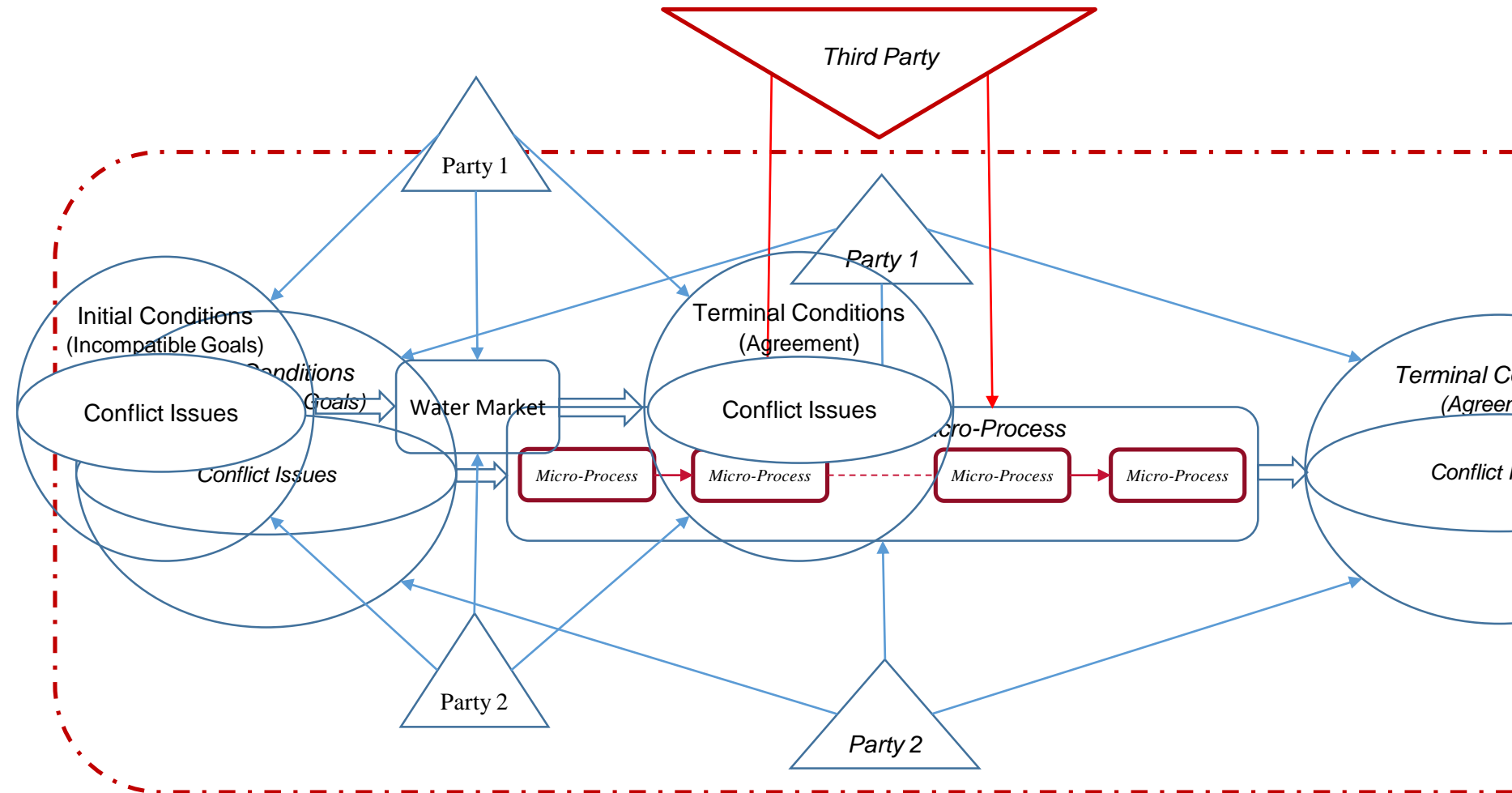
Social Planner



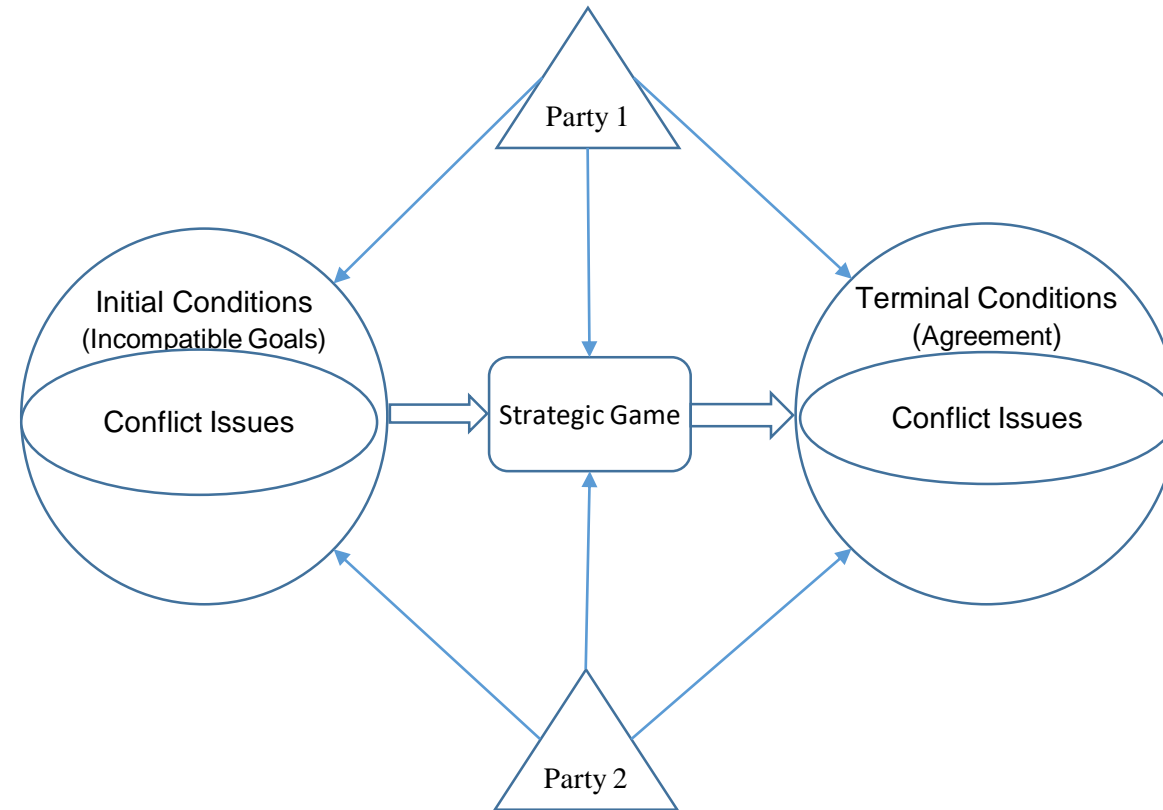
Water Market



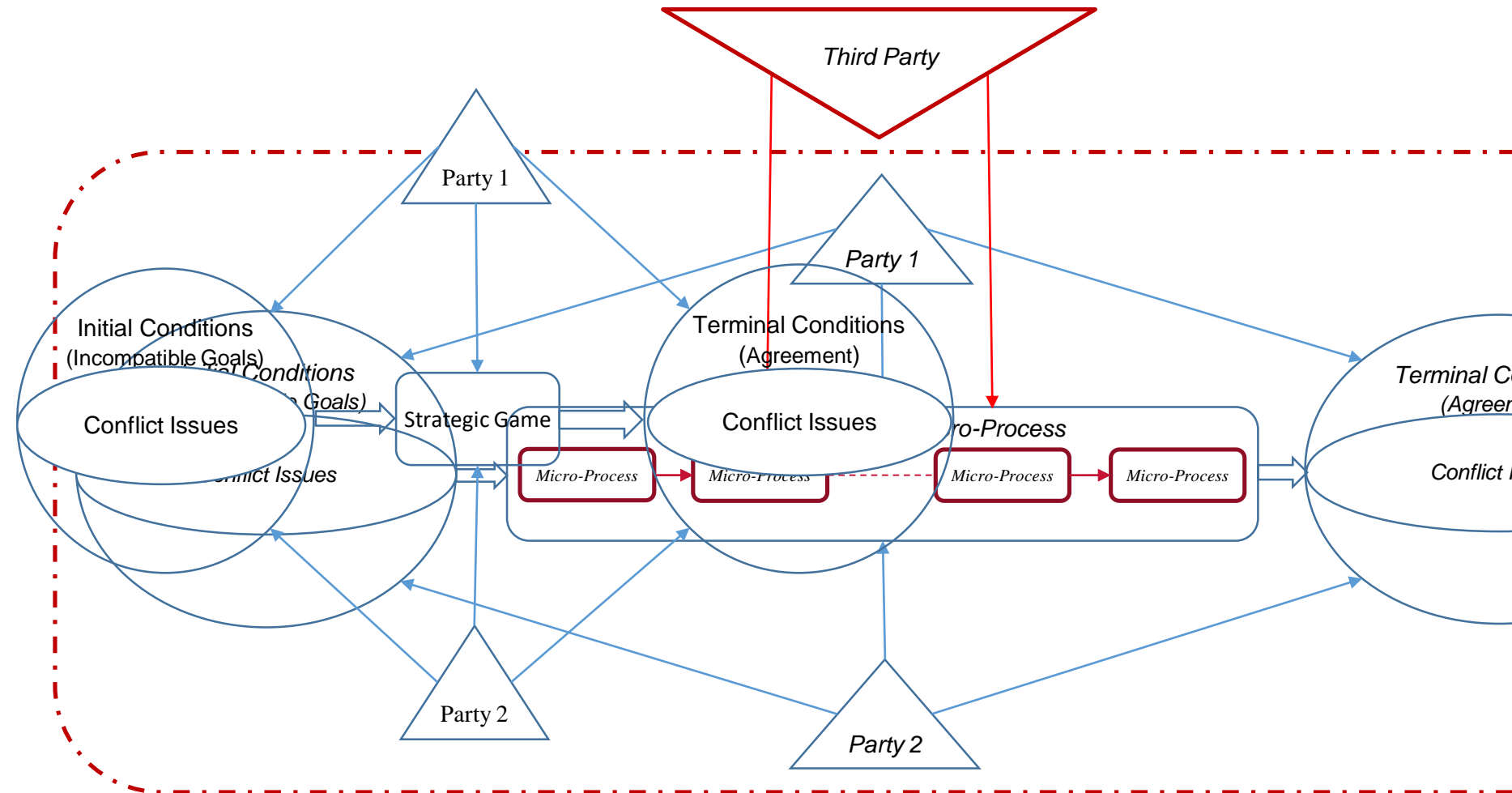
Water Market



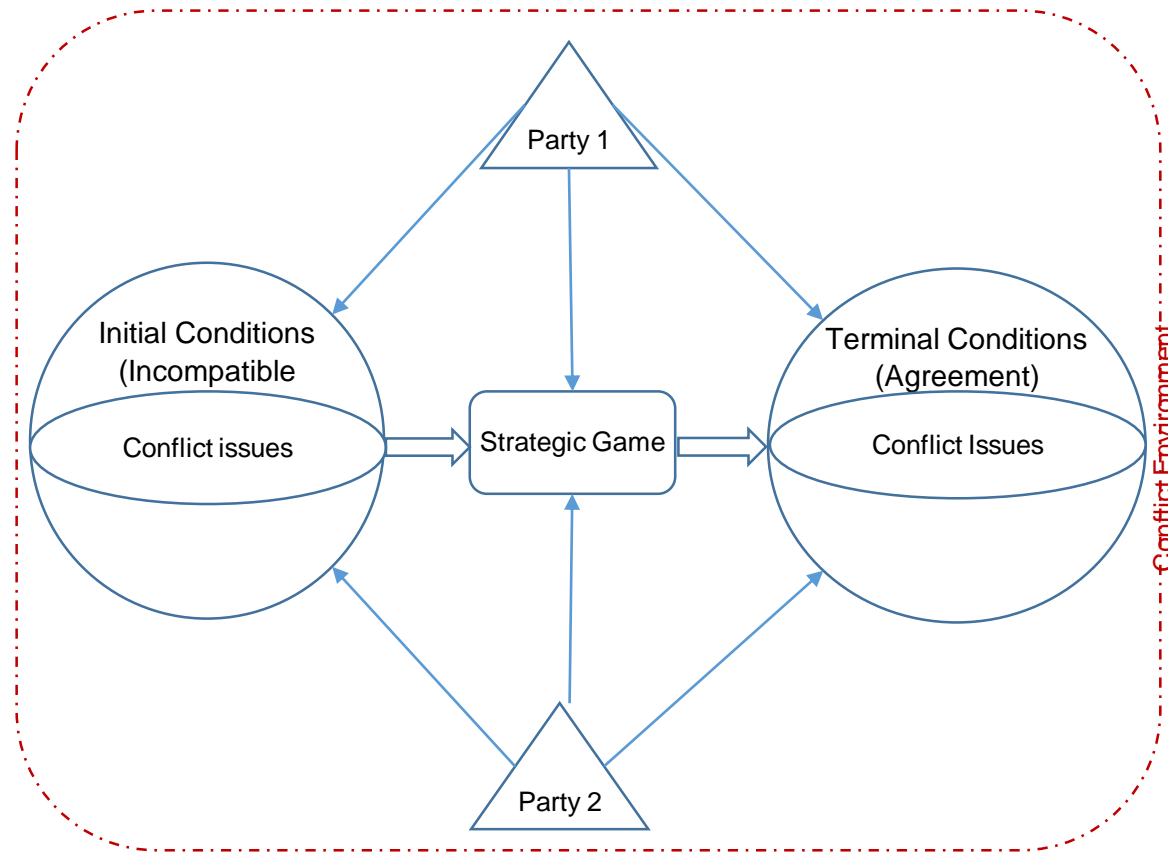
Game Theory



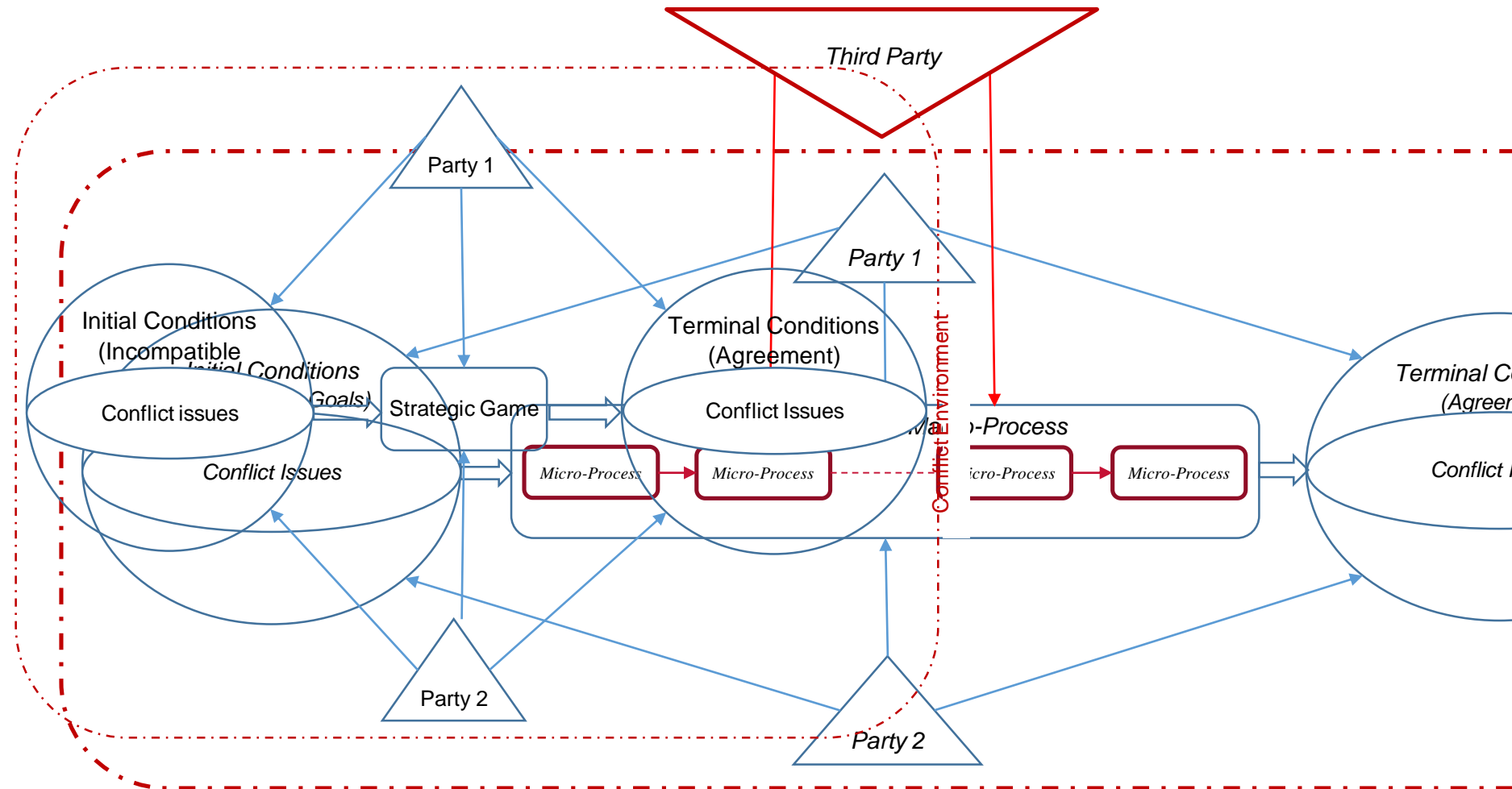
Game Theory



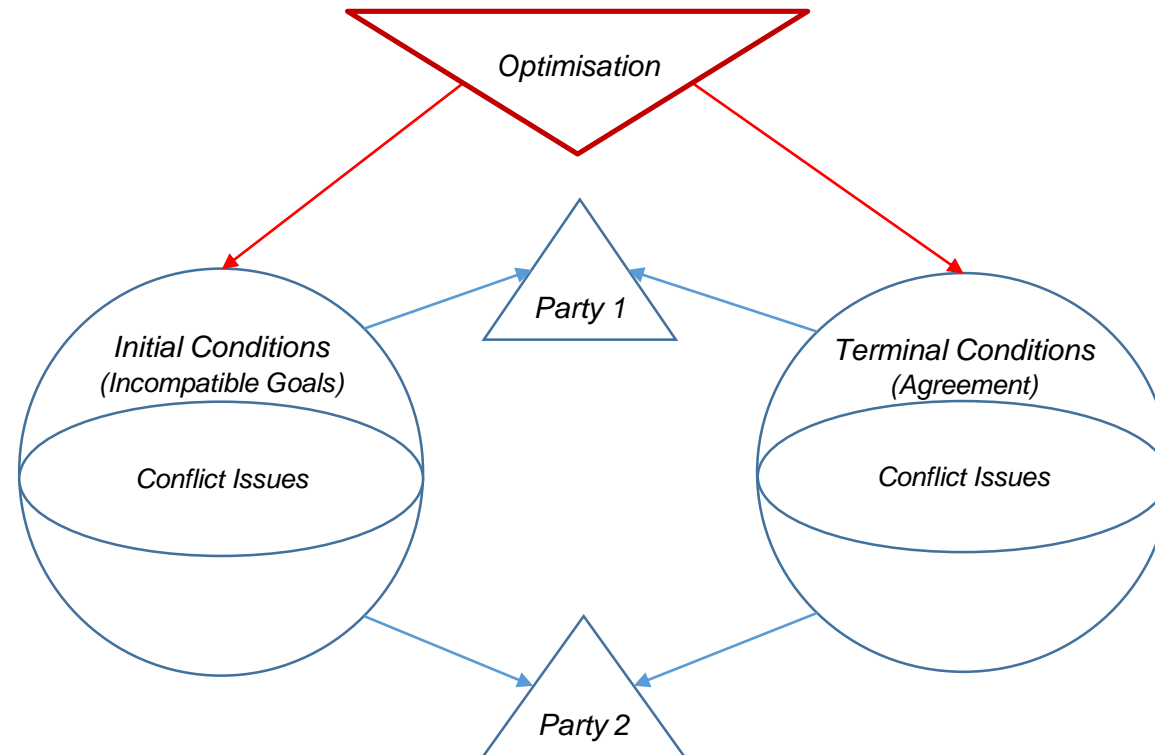
Institutional Analysis and Development Framework

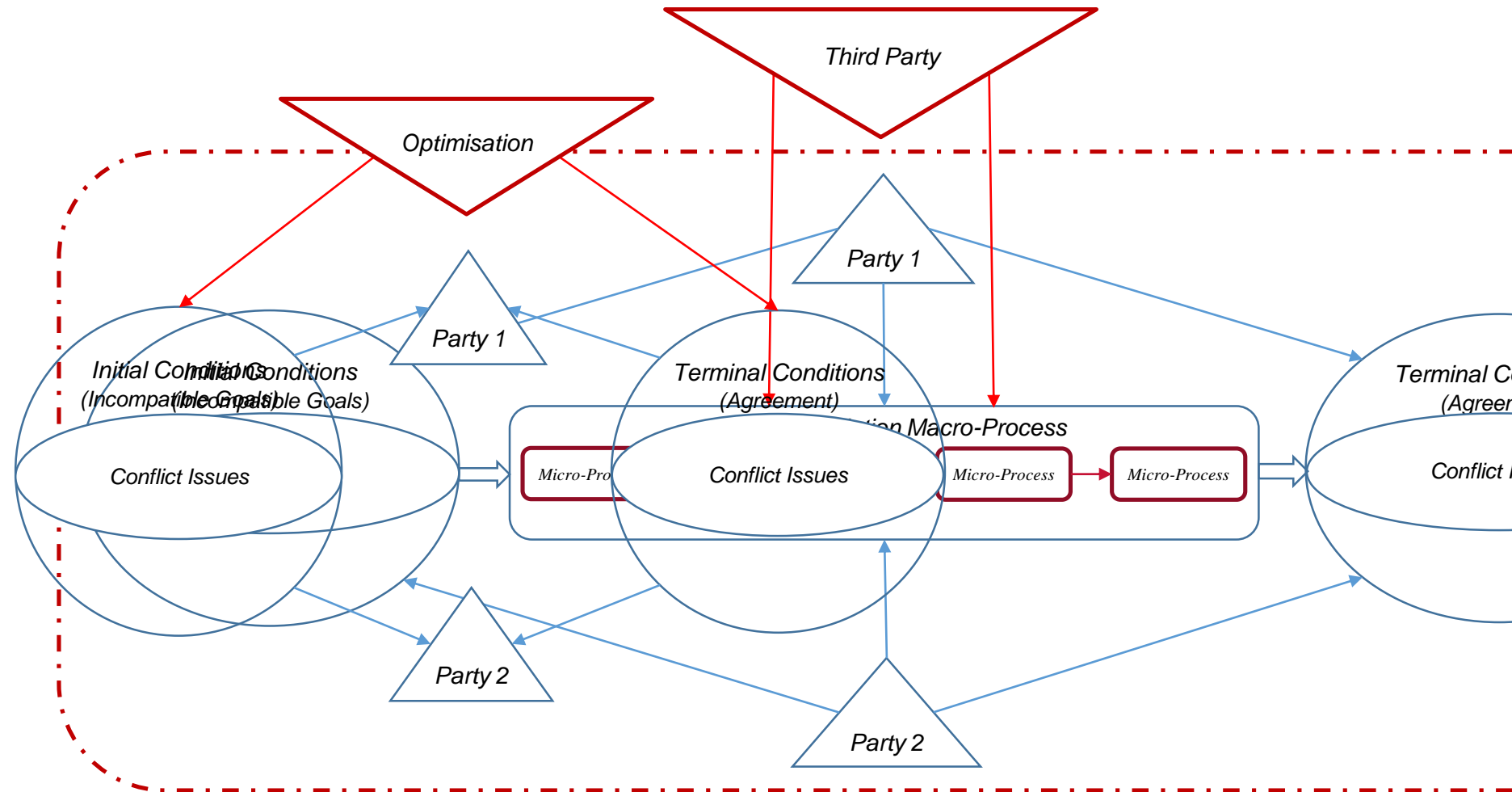


Institutional Analysis and Development Framework

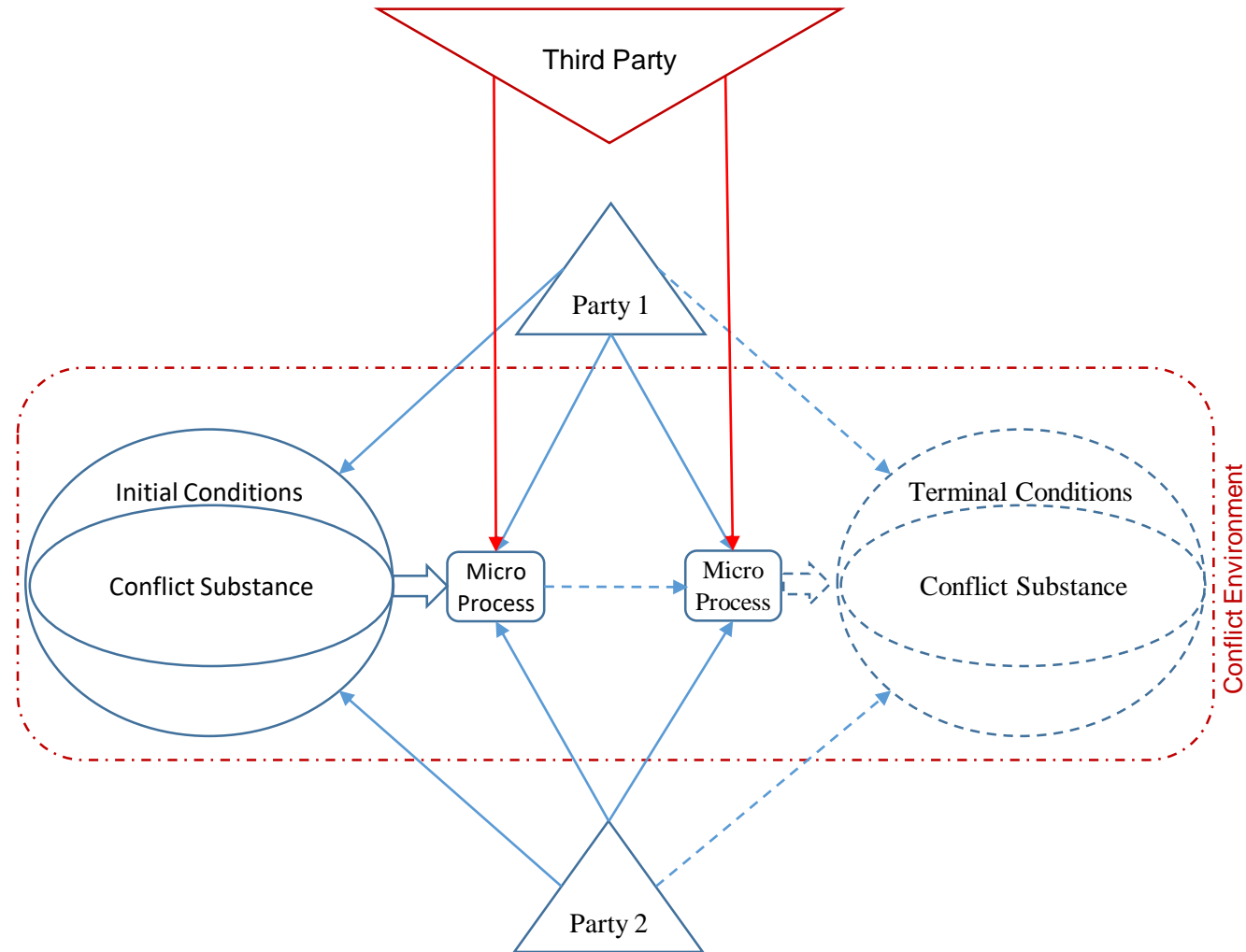


Optimisation

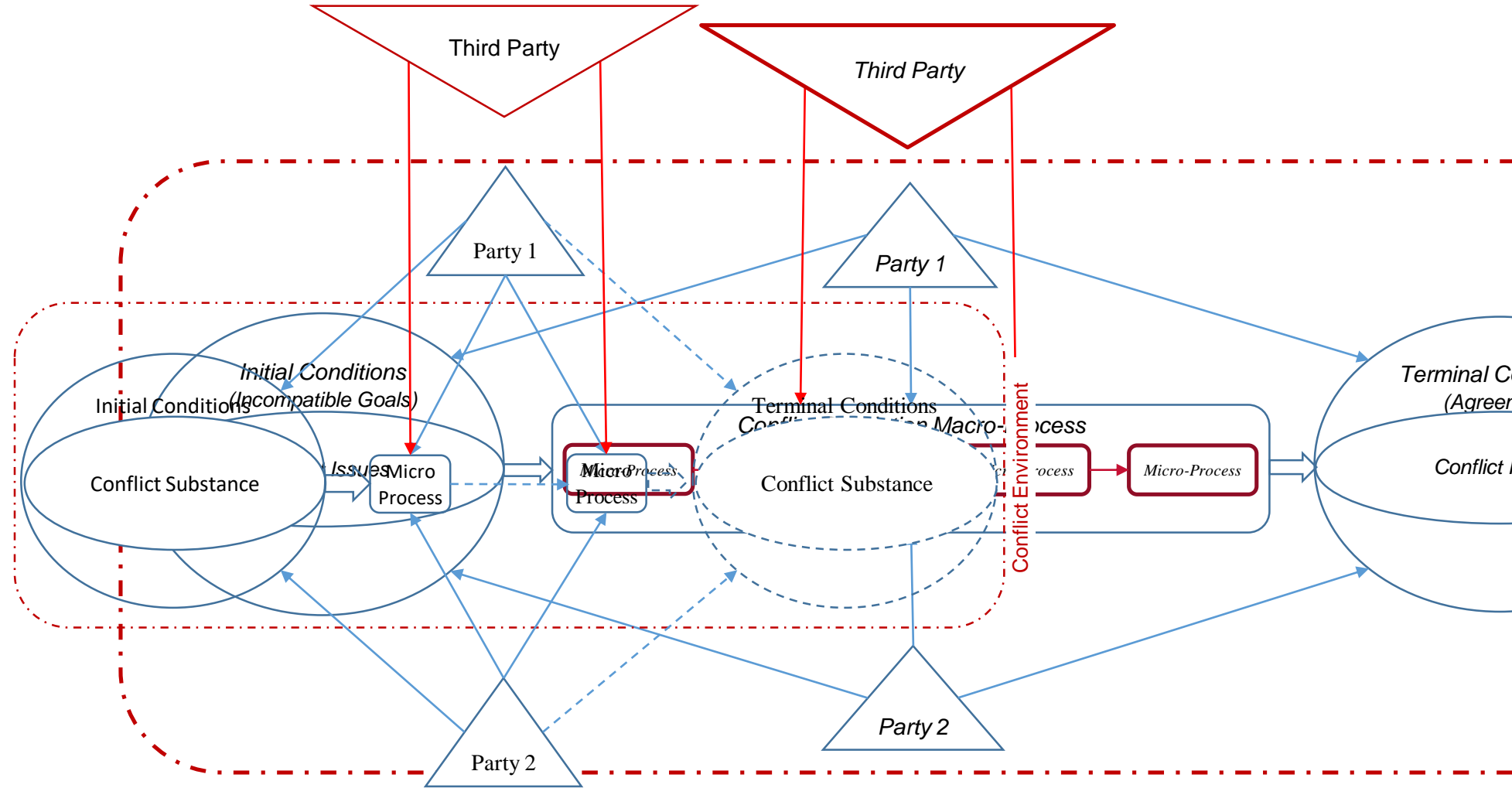




Alternative Dispute Resolution



Alternative Conflict Resolution



Transboundary Water Conflict Resolution Mechanisms

Field	Mechanism	Initial Conditions	Macro-Process Dynamics	Micro-Processes Dynamics	Conflicts Parties	Third Party	Conflict Environment Constraints	Terminal Conditions
Economics	Social Planner	✓	✗	✗	✗	✓	✗	✓
	Water Markets	✓	✗	✗	✓	✗	✗	✓
	Game Theory	✓	✓	✗	✓	✓	✗	✓
	Institution-Constrained Game Theory	✓	✓	✗	✓	✓	✓	✓
Engineering	Static Models	✓	✗	✗	✗	✓	✗	✓
	Dynamic Models	✓	✓	✓	✗	✓	✓	✓
Negotiations	Alternative Conflict Resolution	✓	✗	✓	✓	✓	✓	✗

Conclusions

- **None of the theoretical mechanisms has a comprehensive structure.**
- **The nature of the mechanistic approach as a “sometimes-true” theory.**
- **Complements not substitutes.**



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Analytical Framework

Mechanism

- *A mechanism is not absolutely true. It can be true in particular instances while being untrue in others. Therefore, Mechanisms cannot be confirmed as general theories, “but only confirmed or disconfirmed in specific applications” (Coleman, 1968).*
- *Therefore, the problem in any particular situation is to determine which mechanism has been followed, or can be applied, in this case.*