



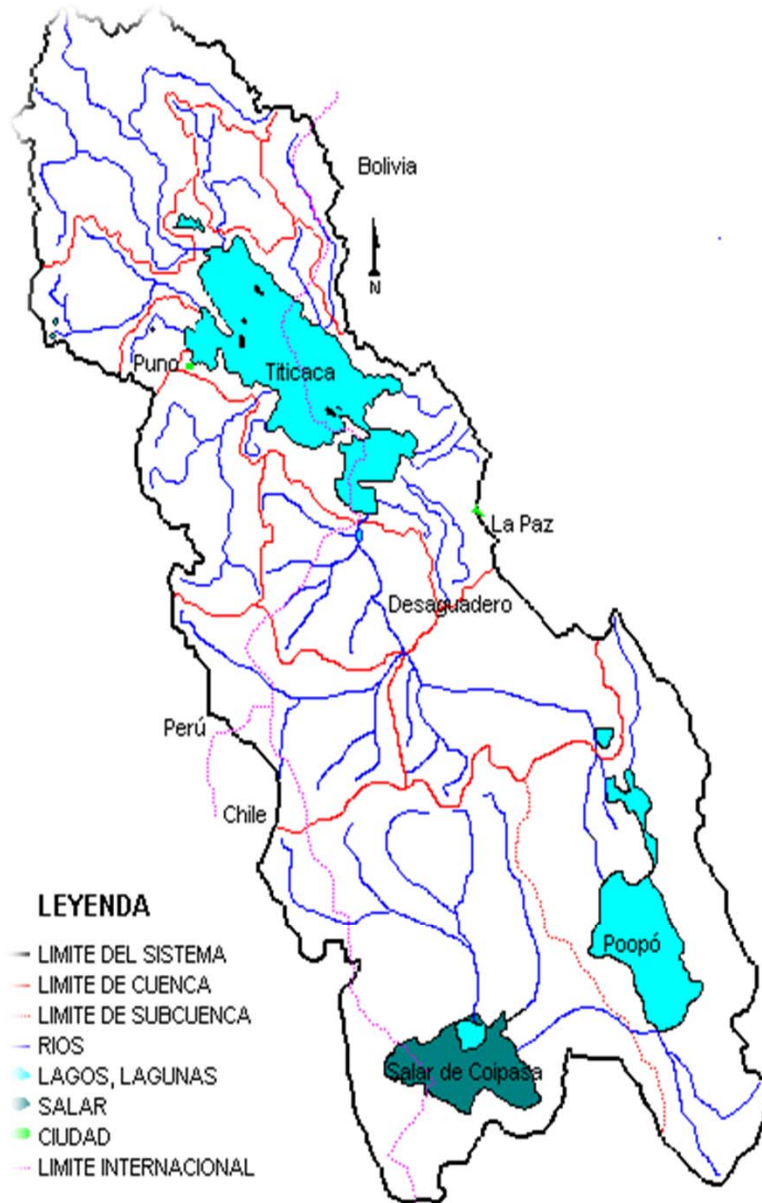
AUTORIDAD BINACIONAL AUTÓNOMA DEL SISTEMA HÍDRICO-TDPS
LAGO TITICACA , RIO DESAGUADERO, LAGO POOPO Y SALAR DE COIPASA.

First Workshop
“River Basin Commissions and other joint bodies for
Transboundary Water Cooperation:
Legal and Institutional Aspects”

Alfredo Mamani-Salinas, P.Eng

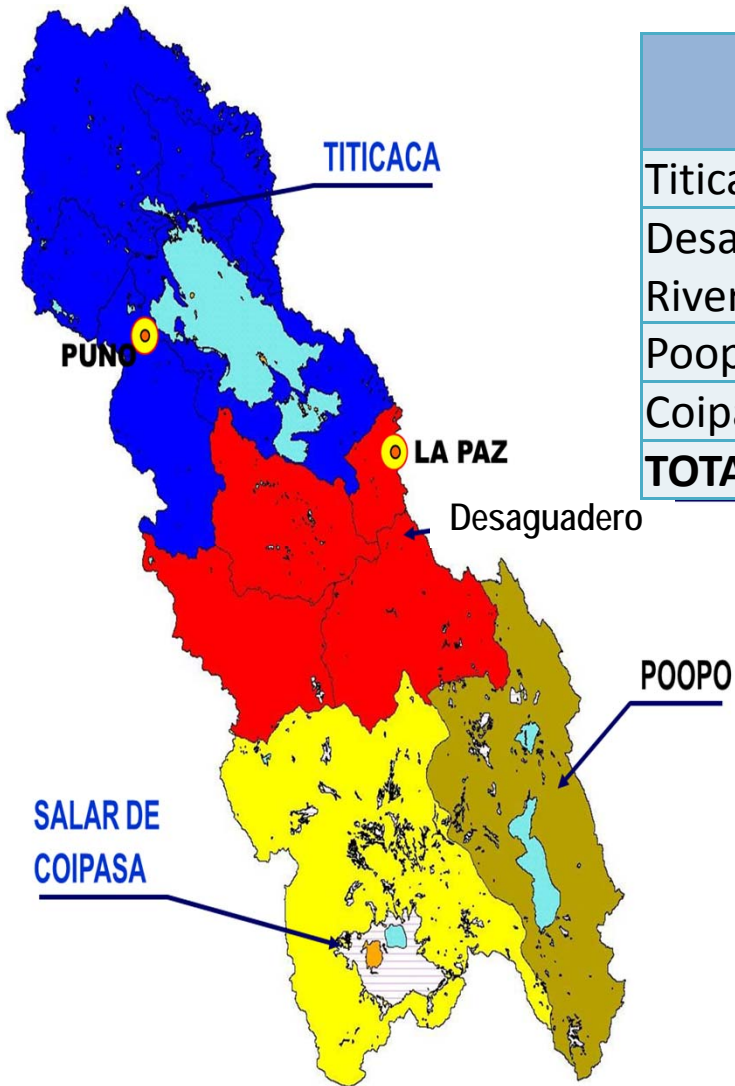
Geneva, Switzerland
September 2013

TDPS Hydrological System





TDPS System Hydrological Zones



Basin	AreaKm ²	% of TDPS	% in Peru	% in Bolivia
Titicaca Lake	56,494	39.1	74.1	25.9
Desaguadero River	31,218	21.6	17.2	78.3
Poopó Lake	23,743	16.4	0.0	100.0
Coipasa Salt Lake	33,135	22.9	0.0	83.0
TOTAL	144,590	100.0	33.9	60.8



Damage from Extreme Weather Events

Value in MUS\$ (Millions US\$)

Drought 1982-1983	Peru	Bolivia	Total MUS\$
Agriculture	52.0	53.0	105.0
Livestock	7.0	16.0	23.0

Floods 1986-1987	Peru	Bolivia	Total MUS\$
Agriculture	31.2	10.0	41.2
Infrastructure	76.4	7.4	83.8

Drought 1989-1990	Peru	Bolivia	Total MUS\$
Agriculture	35.1	53.1	88.0

Extreme event	Peru	Bolivia	Millions US\$
Drought	94.1	122.1	216.2
Floods	107.6	17.4	125.0
TOTAL	201.7	139.5	341.2



Main demographic and socioeconomic indicators of the TDPS System

Description	TDPS	Bolivian Area	Peruvian area
Total population (2009B. 2007P)	3,042,357	62,2 %	37.8%
Rural population - %	51.5	53.3	48.6
Indigenous population (2001B. 2007P)	76.4	83.3	64.9
Percentage of poor population	81.4	82.7	79.2
Child mortality rate (per 1,000 live births)	67.8	80.5	46.9
Homes with basic services(%)			
Electric power	50.5	49.8	51.6
Public water network	37.0	43.1	26.9
Public sewage network	17.7	20.9	12.5
Illiteracy rate(%)	17.5	16.5	19.7
Employed population (% of the EAP)			
Agriculture. hunting. fishing. forestry	44.6	33.4	63.1
Industry. manufacturing and construction	15.3	19.2	8.9
Trade, hotels. banking. services	36.2	41.2	28.0



CARACTERISTICS OF THE ALT

The Binalational Authority of the Lake Titicaca, Desaguadero River, Poopó Lake and Coipasa Salt Lake – TDPS (ALT) has international legal personality, with full technical, administrative and financial autonomy in decision and management

It was established in 1996 through a bi-national agreement between Peru and Bolivia and approved by the Congress of both countries, Legislative Resolution 26873 and Law N° 1972, respectively.





ROLE OF THE ALT

Promote and carry out actions, programs and projects; adopt and enforce planning regulations, management, control and protection in water management.

Support and promote preservation, restoration, protection and conservation of natural ecosystems, according to the Master Plan, and maintaining and improving the environmental sustainability of the TDPS hydrological system.

Establish standards of water quality and promote technologies making a rational use of natural resources. Promote the sustainable development of TDPS hydrological system, implementing global and specific findings of the Master Plan.

Take precautions and coordinate what influences or affects TDPS hydrological system dynamics: main activities, projects and actions, whether permanent or temporary, current or future, national or binational, public or private, must be coherent, compatible and in line with the provision of the Master Plan.

Study and analyse instruments of legal and regulatory harmonization of the national standards related to water and hydro biological resources management in the TDPS system, with the guidelines set out in the Master Plan, proposing appropriate legal and administrative instruments.

Guiding instrument

GLOBAL MASTER PLAN



GLOBAL MASTER PLAN

DEFINITIONS

- 1.- INTRODUCTION
- 2.- SITUATION ANALYSIS AND DIAGNOSTIC
- 3.- DEFINITION OF THE POTENTIAL DEVELOPEMENT OF THE ALTIPLANO
- 4.- STRATEGIES FOR THE DEVELOPMENT OF THE MASTER PLAN
- 5.- GENERAL MANAGEMENT GUIDELINES IN THE TDPS SYSTEM

PROPOSALS

6.- WATER RESOURCES PLANING AND MANAGEMENT - ANALYSIS AND PROPOSED SOLUTIONS

7.- FLOOD PROTECTION-PREVENTION - ANALYSIS AND PROPOSED SOLUTIONS

8.- AQUATIC RESOURCES USE AND MANAGEMENT _ PROPOSED ACTIONS

9.- ENVIRONMENTAL MANAGEMENT PROPOSALS

10. - PROPOSED ACTIONS FOR THE MASTER PLAN IMPROVEMENT

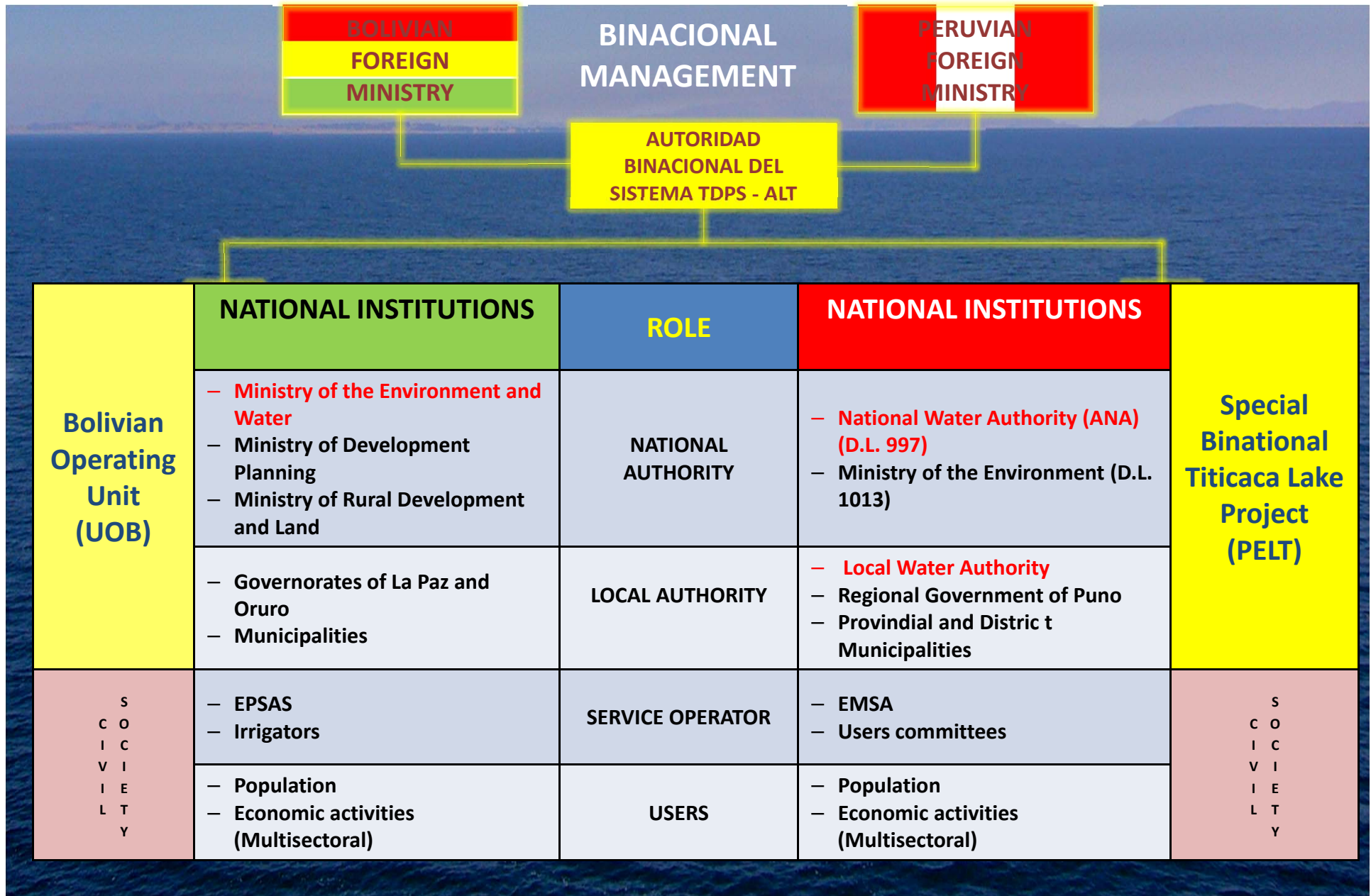
11.- COSTS AND BENEFITS OF THE PROPOSED ACTION

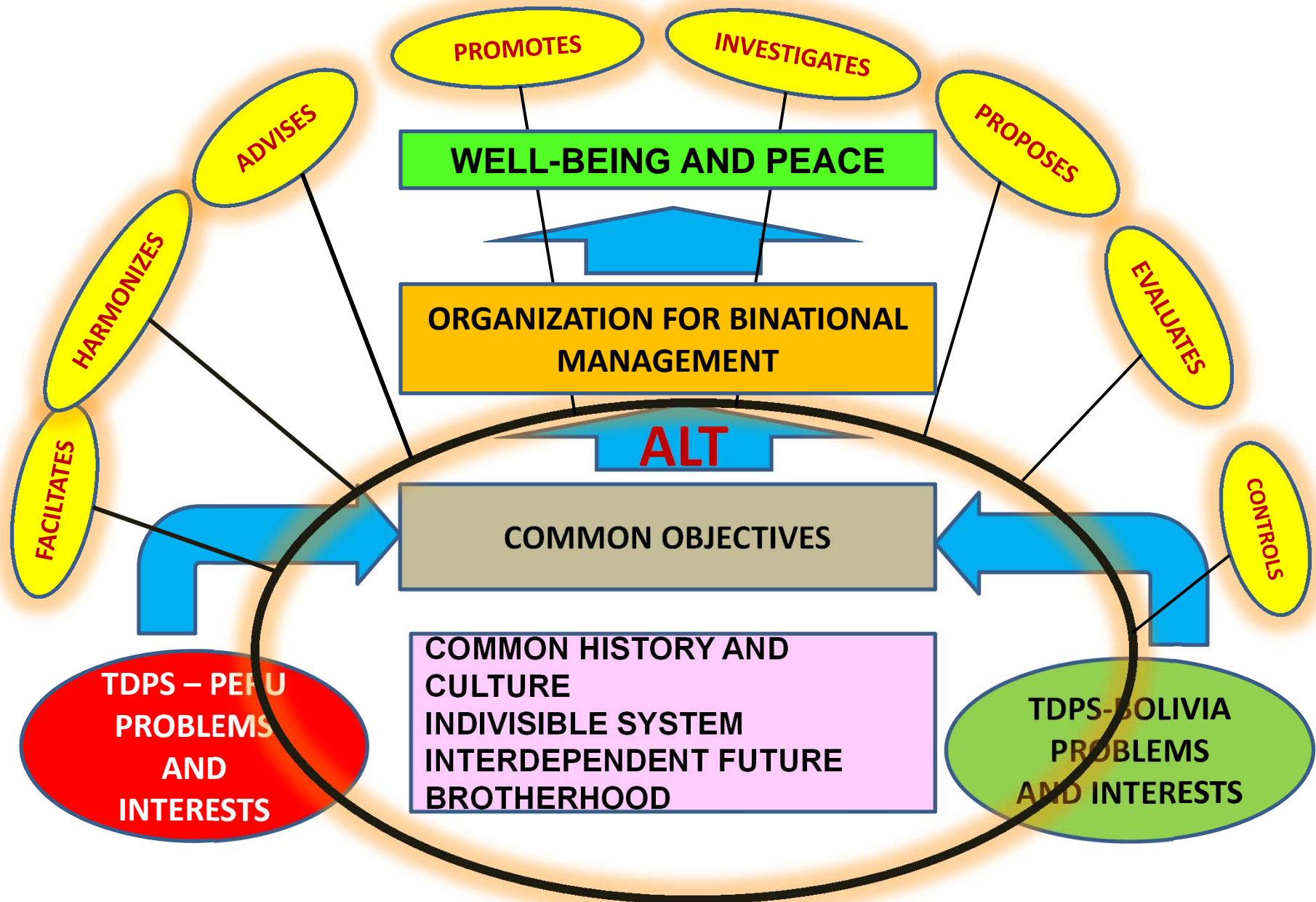
12.- PRIORITIES FOR ACTION, SHORT AND MEDIUM TERM, BANCABLE TOPICS

13.- IMPLEMENTATION AND MANAGEMENT OF THE BINACIONAL MASTER PLAN



INSTITUCIONAL COORDINATION







WITHIN THE INTERNATIONAL CONTEXT

The ALT design established by Peru and Bolivia has set an example in several global events on water resources, such as:

- **Kyoto Third World Water Forum**, as a mean of integration and sustainable development,
- **Berlin International Roundtable** for shared water management between two countries or more conclusions drafting and studying,
- **Other practical situations of shared Water Resources Management** (accelerating procedures and identifying necessary aspects)

COMPLIANCE WITH INTERNATIONAL AGREEMENTS:

- **Declaration of Montevideo**, 24 Sept 1933
- **Declaration of Buenos Aires**, 1957
- **Resolution of New York**, 1958
- **Salzburg resolutions**, use of non-maritime international waters (except for navigation), 11 Sept 1961
- **Helsinki Rules**, August 1966
- **United Nations water conference**, Mar del Plata, March 1977
- **Berlin International Roundtable** : to study the management of shared water resources between two or more countries, 1997
- **IV Inter-American Dialogue on Water Management** – foz de iguaçu, Sept. 2001



MISSION AND VISION

MISSION

ALT's mission is to promote and implement programs, plans and projects related to ordering, managing, controlling and protecting water resources, aquatic and environmental products, harmonizing the actions with public and private organizations to achieve sustainable development of TDPS system.

VISION

ALT's vision is to become the technical and scientific authority, competitive and inclusive of the actors constituting TDPS system that achieve excellence in water and aquatic resources management, efficiently and effectively contributing to the sustainable development of TDPS system .



THANK YOU