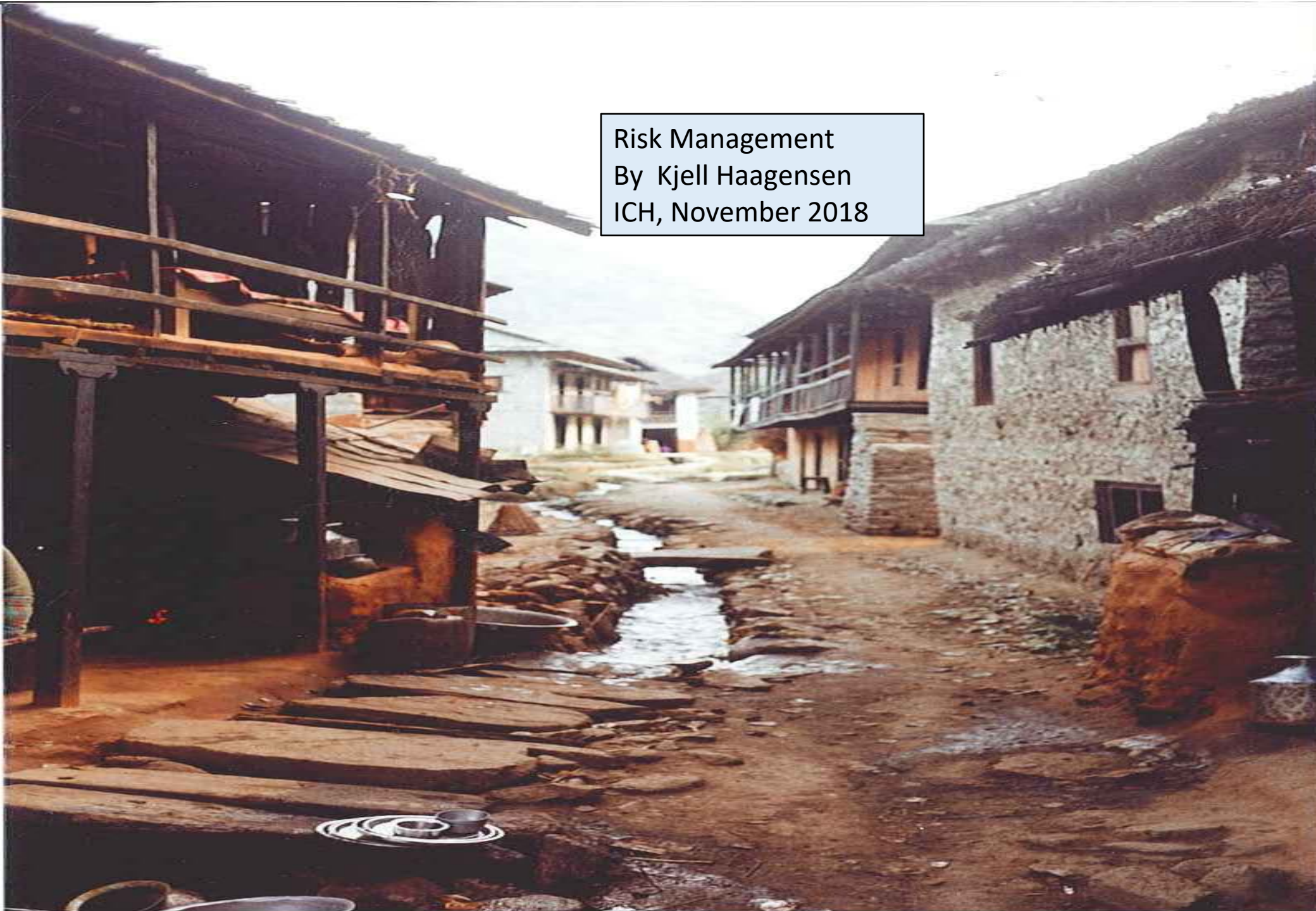


Risk Management
By Kjell Haagenzen
ICH, November 2018



Who should be most concerned about the risk picture ?

.The Lenders

.The sponsors/ investor

?

The Government

Who should carry the risks ?

- **Risks are best managed by the organization which can control it or can manage the outcome in the event that the risks occurs.**

The risk allocation:

- Sponsors
- Host government
- Commercial insurance companies
- International financial institutions
- Private sector lenders
- Export credit agencies

Different consequences of risks:

- Cost over-run/ cost increase
- Delays
- Technical hindrances/ technical failures

The risks may be related to:

- **The off-take of electricity (PPA)**
- **The transmission line (construction and operation)**
- **The timing of completion of the power plant (and transmission line)**
- **Financial issues (currencies and cash-flow etc.)**

The link between transmission and generation

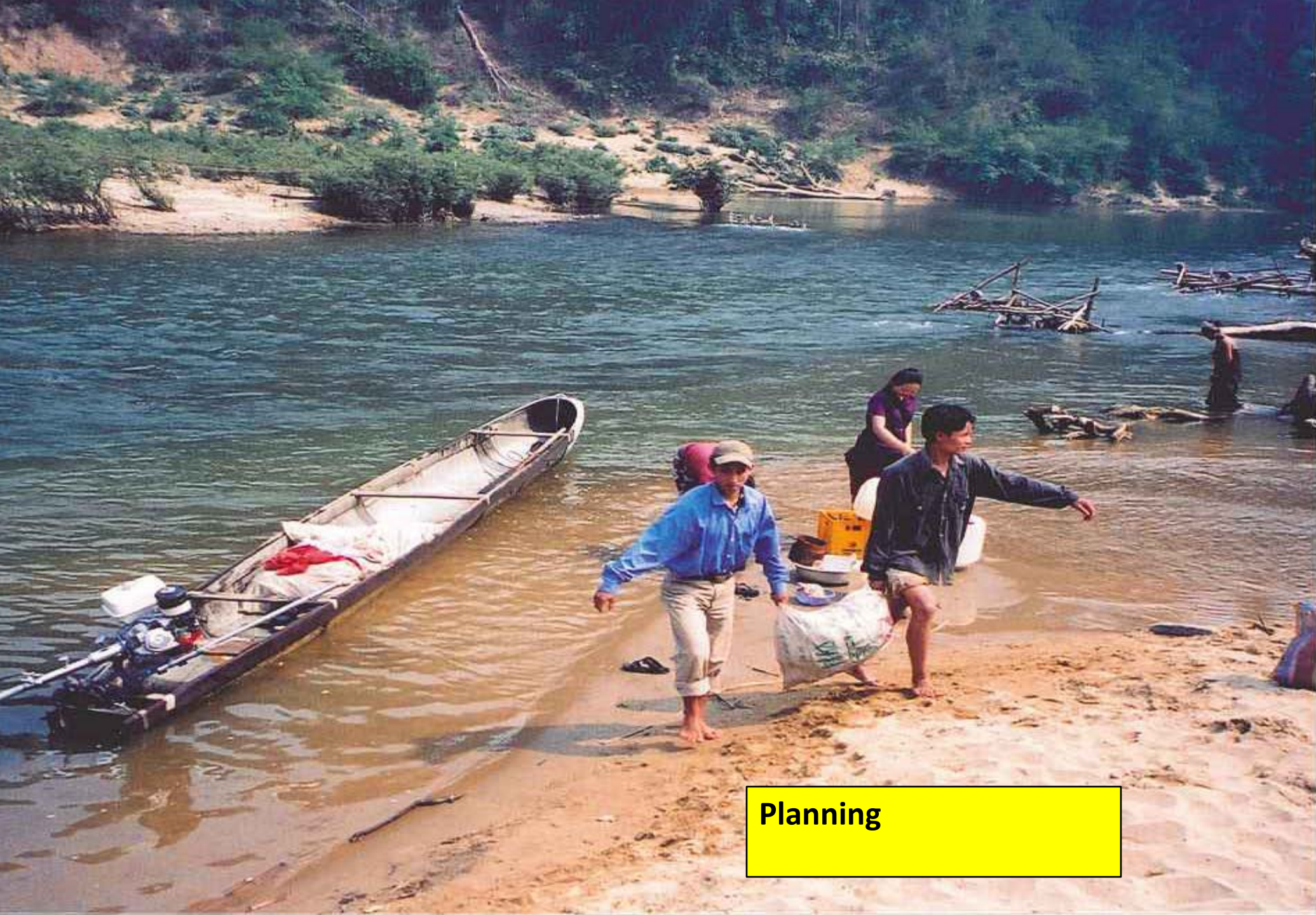
- Generation and transmission are interdependent.
- It is no point to construct a power plant unless you have the transmission system ready.
- It is no point to construct a transmission line unless you have power plants ready to use it.
- Timing of the construction of transmission line and construction of the power plants, are crucial for all parties involved in the electricity supply industry in Nepal.
- The risks of the generation and transmission projects are closely linked to each other.

What kind of risks should be considered ?

- **Planning**
- **Start-up**
- **Granting of permits, concessions etc.**
- **Construction**
- **Operation and performance risks**
- **Political risks**
- **Tax risks**
- **Force Majeure risks**
- **Contractual risks**
- **Risks related to currency**

What kind of risks should be considered ?

- **Market risks**
- **Technical risks**
- **Risks related to financing**
- **Environmental risks**
- **Infrastructure risks**
- **Credit risks**
- **Change-in-law**
- **Country risk**



Planning

Feasibility study

- To be used for bidding
- To be used by the sponsor
- To be used by the lenders

What should the feasibility study contain

- List of all contracts needed (contract structure)
- Management Agreement
- Funding
- Summing up of technical, economic and environmental issues related to implementation of the project
- Projected cash flow statement
- The market
- Environmental and socio-economic issues
- Concession/ license – and PA

I

It is a challenge to keep any feasibility updated.

- *Changes in technology*
- *Changes of the environment*
- *Changes in the requirements of the lenders as well as the Government (even change-in-law).*

Start up (completion risk)

- Important to comply with the time schedule and requirements set out in:
 - A) PA/ Concession Agreement
 - B) Financial agreements
 - C) PPA

Granting permits and concessions



Granting of all necessary permits, concessions and licenses in due time.

- Such delays may be caused either by the GOM or GOM agencies, - or
- by delays in the Project Company`s preparing of applications and documentations, required to get permits.
- Permits may be subject to unreasonable conditions.

The need of coordination

- ONE-STOP-SHOP

Construction risks



Construction

- .Lack of sufficient infrastructure
- .Problems with EPC contracts
- .Environmental risks
- .Lack of capacity in the contractors market
- .Lack of access to competent workforce
- .Lack of capacity among suppliers of equipment.

Crucial hydropower risks

- .Ground/ rock conditions
- .Sedimentation
- .Risks related to coffer dams (koffard-dams)
- .Flooding of the facilities during the construction period.

Hydrological risks

- .Number of years of rainfall records**
- .The quality of such documentation**
- .The likelihood of new utilization of the water**
- .Climate changes**



**Operation and
performance risks**



Political risks

Political risks

.Change of political program or political priorities, caused by change of Government after general election (or change of majority in the Parliament).

.Political resistance from NGOs

.Political challenges from local governments

Tax risks



Tax risks

- .Tax treatment of distribution to investors
- .Tax treatment of money realised on sale of shares.
- .Availability of double tax treaties/ agreements
- .On issue will be related to change of name of the state take - from taxes to charges or fees etc.



Force Majeure

Force Majeure risks

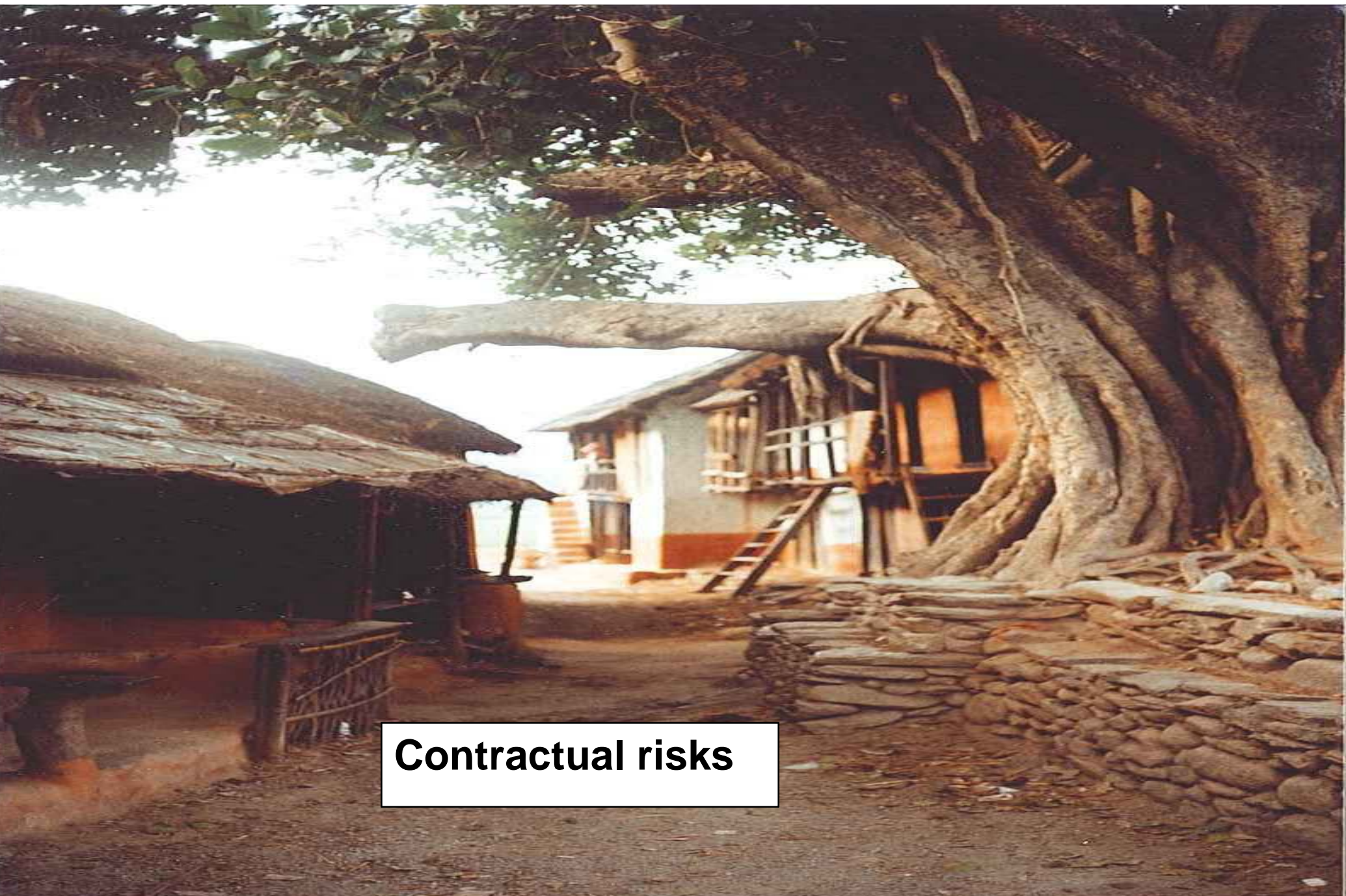
.Strikes

.Flooding

.Fire

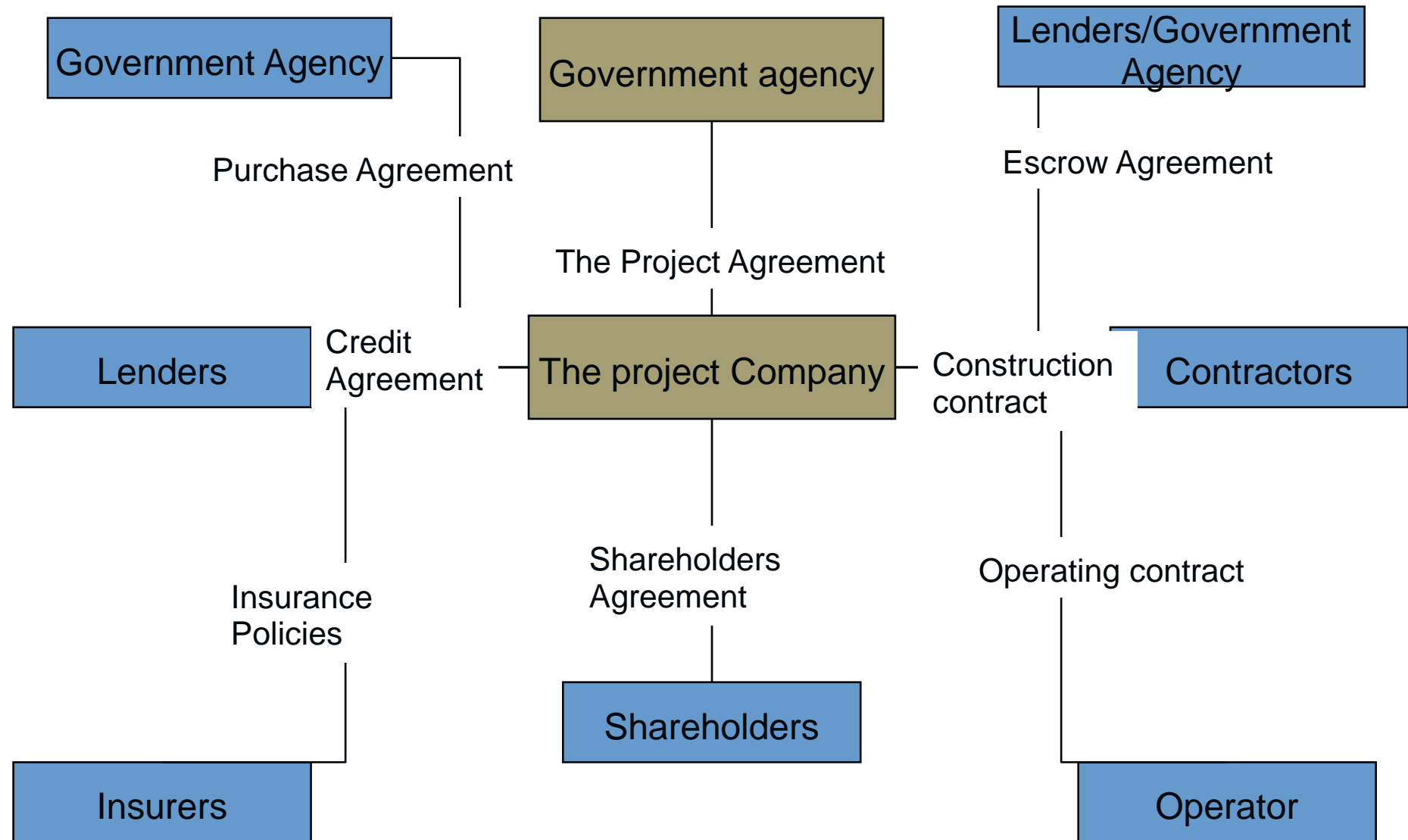
.Technical accidents

.Riots/ insurrection

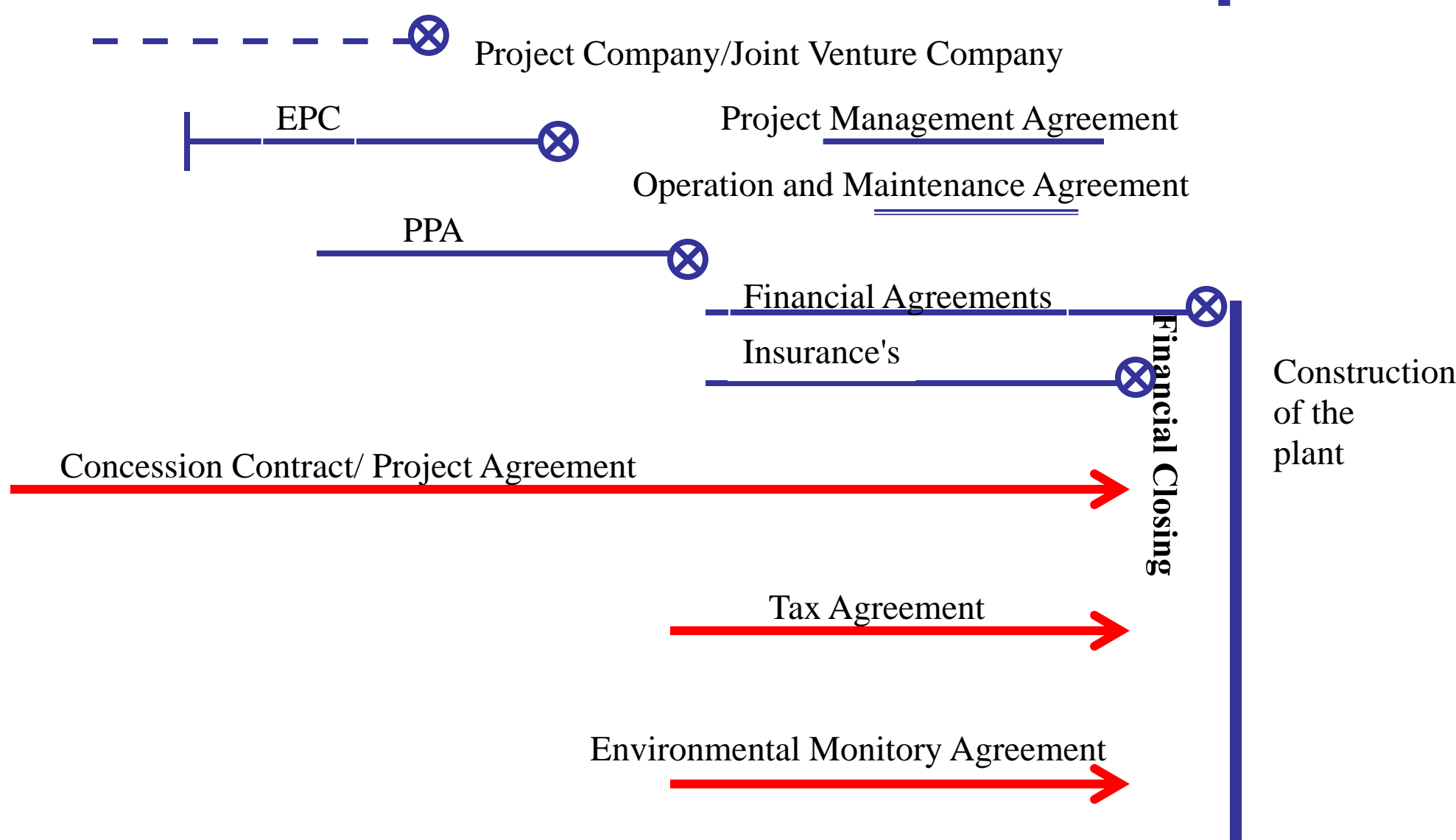


Contractual risks

The contractual structure of a typical BOT-project



Feasibility Study



Provisions which should be harmonized

- Dispute resolution procedures
- Force Majeure
- Default
- Liquidated damages
- Hardship
- Conditions precedent
- The issue of cross-default must be given attention



**Risks related to currency and
foreign exchange**

What is hedging ?????

It is a risk management technique used to reduce any substantial losses or gains suffered by an individual or an organisation

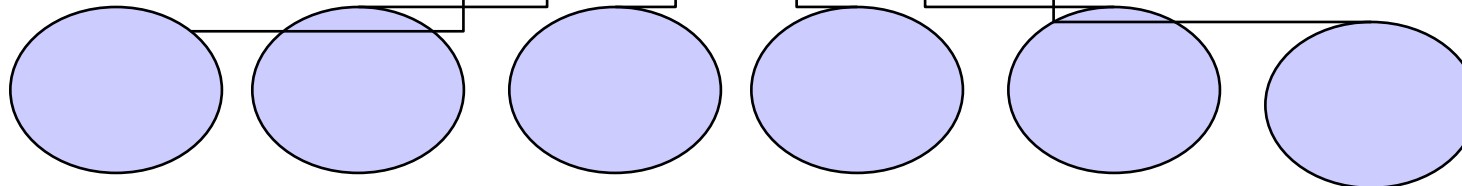
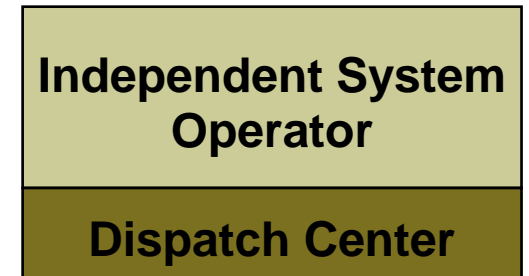
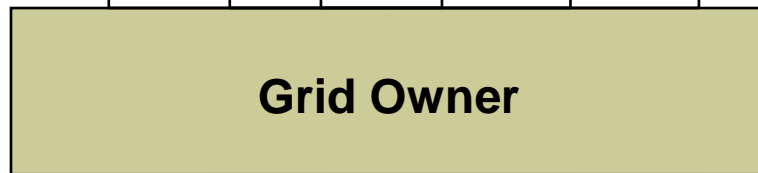
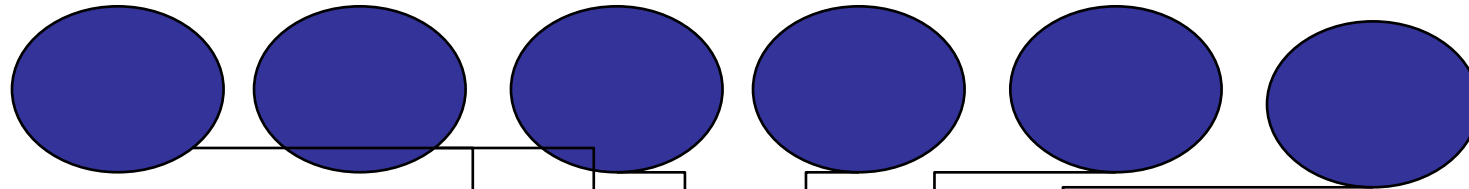
It can be constructed from many types of financial instruments, including stocks, exchange-traded funds, insurance, forward contracts, swaps, options and derivative products as well as future contracts.

Instruments available for handling of the currency risks.

- The easy way – to make all payments in hard currency as USD or Euro.
- To do borrowing in the local currency
- Currency risk sharing – by contract
- **Derivates:**
 - A) Forwards
 - B) swaps
 - C) options
 - D) futures

Market risks





Balance between the market
stakeholders

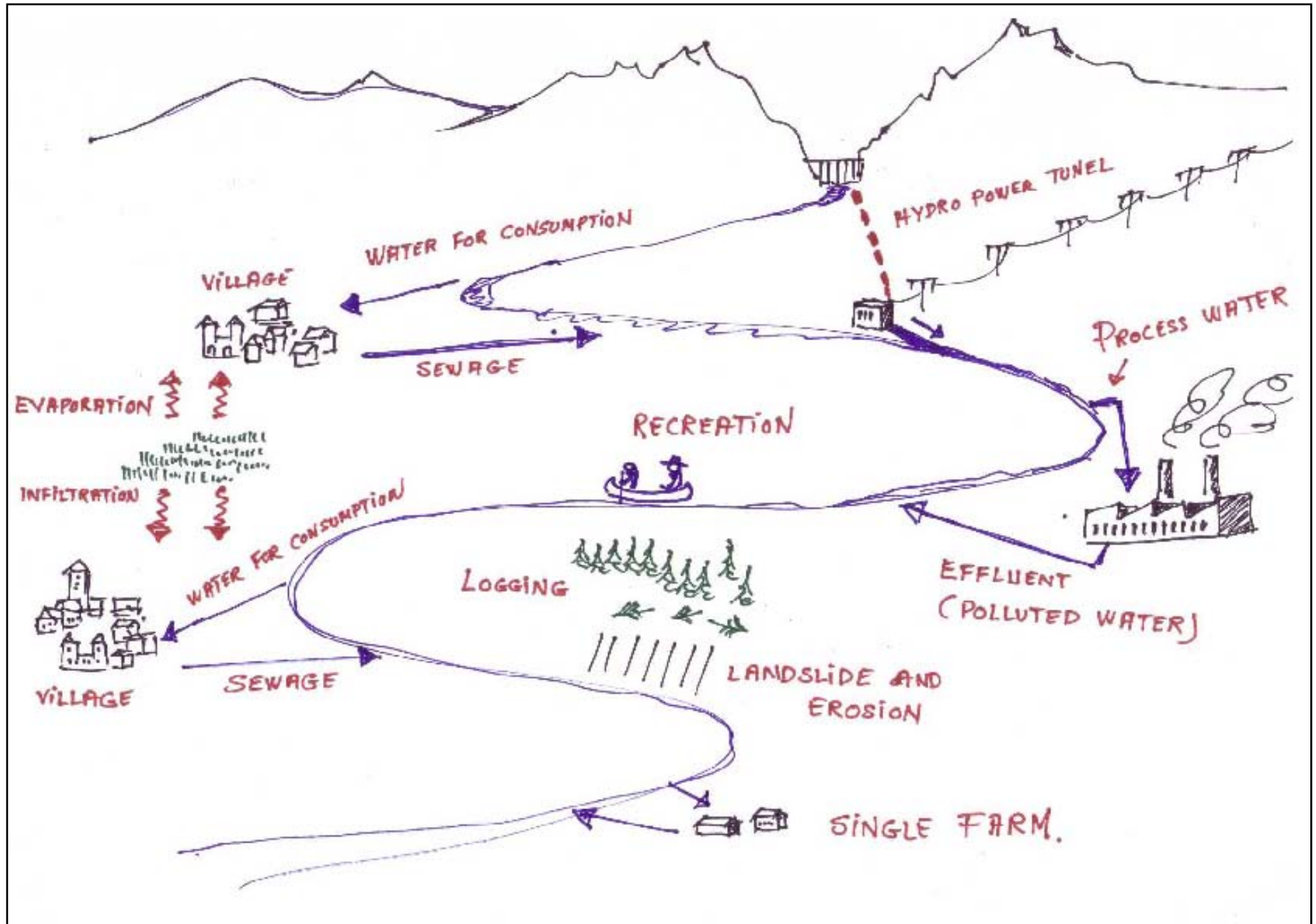


Environmental risks



Environmental risks

- Socio-economic impact/ resettlement
- Flooding/ inundation
- Land slides/ erosion
- Damage caused to local farming and fishing

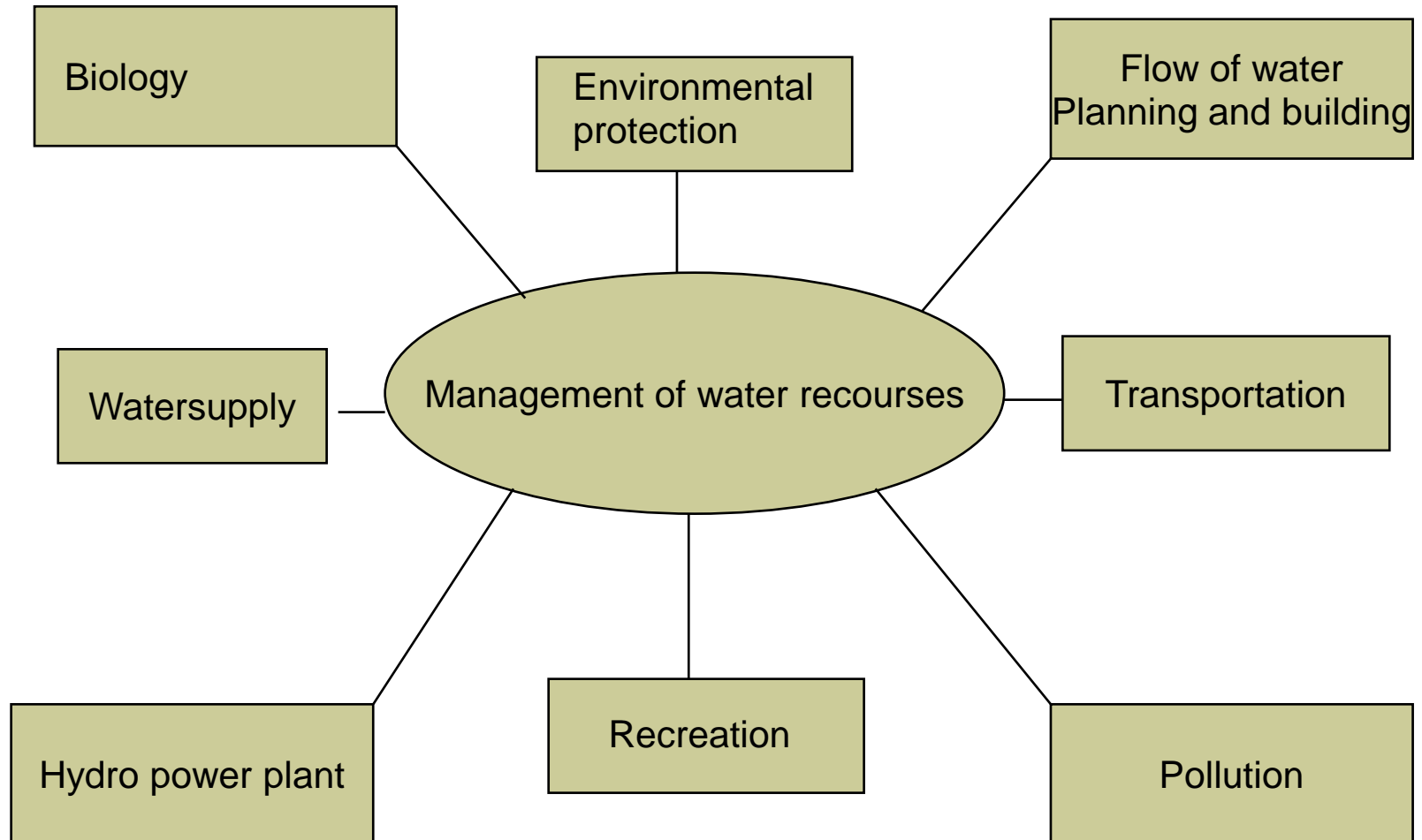


WCD

● Change in context:

- From techno-economic interest to greater emphasis on rights and interest of people and communities affected
- NGOs will play a more important role
- Private sector will play a more important role as well
- Stakeholders should not only be consulted but be empowered to negotiate in the taking of key decisions affecting them.
- The concern of human rights are growing steadily stronger.

Management



Infrastructure risks



Infrastructure risks

- Access to transmission grid
- Access to roads
- Telecommunication
- Supply of electricity during the construction period

Crucial issues related to infrastructure

- Who should provide the funding, - and who should be responsible for the construction and operation of such facilities?

Credit risks



Allowances granted by the Government to the lenders

- A) Guarantee the creditworthiness of any State-owned entity
- B) Approve the financing
- C) In case of termination, the government will grant a replacement concession
- D) Government notify the lenders of any alleged or anticipated breaches of the license
- E) Lender shall have the right to step-in and cure
- F) State claims shall be subordinated to lenders claim
- G) Right to substitute a new company
- H) Right to assign the rights and security held by the lenders.



Country risks



Issues for the country risk assessment

- Political movements with focus on ethnicity, national identity and religion
- Frequency of changes of government (frequent followed by abrupt changes of policy).
- Level of violence in the country
- Conflict with other countries
- Resource base – natural, human and financial resources.

Risk Assessment



Risk	Group 1	Group 2	Group 3	Group 4
Planning		X		
Start-up				X
Political		X		
Environm.			X	
Construct.	X			
Market			X	
Currency	X			
Sum:	2	2	2	1

Evaluation of the risks

- Underestimate of the risks (which may lead to unexpected and heavy losses)
- Overestimate of the risks (which will lead to high costs – common with foreign investors)

Mitigation of the risks

- Efficient risk allocation
- Back-to-Back agreements
- Insurances
- To involve multilateral banks
- To involve the government as stakeholder (PPP)
- Important to bear in mind:
- Whatever we do we cannot get the risks to disappear. But they may be converted to direct project costs.

The World Bank Group instruments

- The international Bank for Reconstruction and Development (IBRD)
- The International Development Association (IDA)
- The International Finance Corporation (IFC)
- The Multilateral Investment Guaranty Agency (MIGA)
- International Centre for the Settlement of Investment Disputes (ICSID)

Partial Risk Guarantee (1)

- May cover against:
 -
- Political risks like:
 - A) war and civil disturbance
 - B) expropriation and nationalization
 - C) Foreign currency availability and convertibility

Partial Risk Guarantee (PRG) (2)

- Contractual and regulatory risks:
 - A) Failure to meet contractual payment obligations
 - B) Non-payment of an arbitration award following a covered default
 - C) Obstruction of a arbitration process
 - D) Failure to issue licenses, approvals and consents in a timely manner.
 - E) Changes in law

Himal Power Limited – Khimti I



➤ Capacity:
60MW/350GWh

➤ Location:

100 km (6hrs drive) east of Kathmandu

➤ Commercial Operation from:
11th July 2000.

➤ Financing (mUSD) :

ADB	31.0	21.8%
IFC	28.0	19.7%
EF*	29.2	20.6%
NORAD	4.6	3.2%
SubLoans**	11.1	7.8%
Equity	38.0	26.8%
TOTAL	141.9	100.0%

*EF = Eksportfinans

**SubLoans – ADB/IFC/NDF –
3 MUSD each + interest

Conclusions

- Important to get clarified the roles and basic positions of the stakeholders related to fast implementation of the project.
- Strong political support from the government, - to guarantee that the implementation of the projects will not be stopped or delayed because of political decisions.
- A common understanding by all stakeholders and decision makers, - to make all efforts required to bring the project forward.
- Competent teams have to be established to monitor, advise and organize the implementation of the project.

Thank you for your attention

