

THE CAMISEA GAS PROJECT
A MULTI-STAKEHOLDER PERSPECTIVE ON CONFLICTS & NEGOTIATION

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“Kobeni, Kobeni, Narotari, obambaroataka, narotari, niavagitacharina, okasanka, gitetapakira kobeni”
“What would be about us without the nature? We would die... we would not exist.”
 Machiguenga Song

“All for one, one for all--that is our motto, is it not?”
 D’Artagnan, The Three Musketeers

March 4th, 2006 was the date of the latest of a string of failures for the Camisea Pipeline, the fifth since operations began just 20 months ago (see Figure 1). This failure caused the spill of 750 cubic meters of liquefied gas and an explosion close to the Kepashiato Community, in Quillabamba, Cusco. The consequences of this latest failure were 35 acres of fired land, people injured and a new political scandal around the Camisea Project.

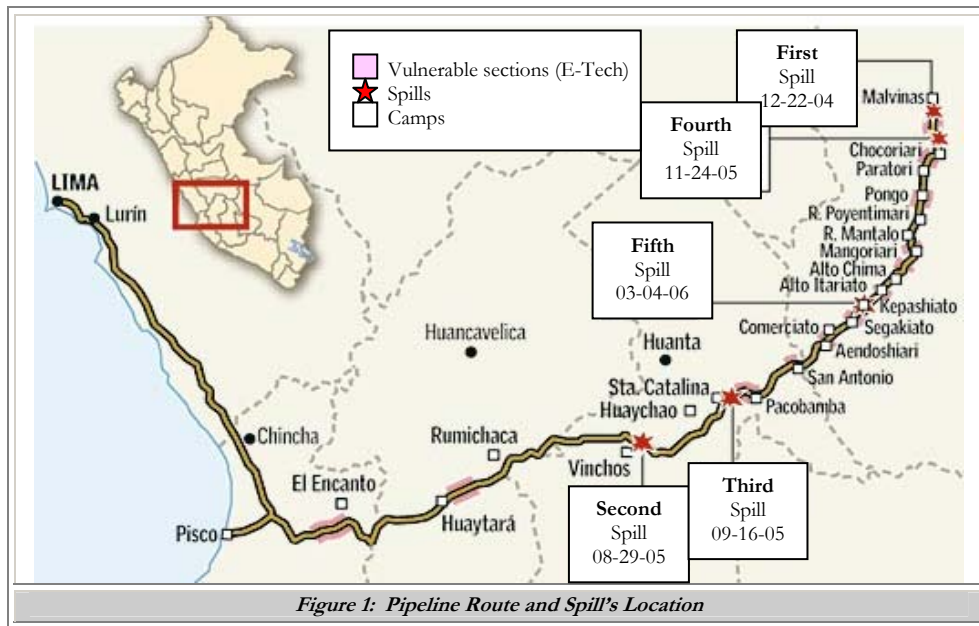


Figure 1: Pipeline Route and Spill's Location

Source: *Caretas*

Opinions regarding the spills are varied and controversy abounds. While E-Tech International, the environmental consultant, concluded in a report presented to the IDB, that the low quality of works and materials were the main reason of these explosions; Pedro Pablo Kuczynski, Prime Minister of Peru and ex-member of the board of directors of the company that supplied the pipelines for the project, stated that the number of explosions to date is quite reasonable for new pipelines. Furthermore, Ricardo Markous, President of the Board of Directors of TGP – the company in charge of the transportation of the gas – has rejected the conclusions presented by E-Tech International.

This last event is by no means the only struggle that the Camisea Project has suffered. From the very beginning, in the early eighties, when Shell entered the Peruvian Amazon to explore Camisea Fields, they did not expect and thus could not manage the social and health impacts that their presence caused in the communities. With the lessons learned from their first entrance to the Amazon, Shell entered for a second time during the nineties to continue with the explorations, this time with an elevated commitment to the environmental groups and indigenous communities. However, the next threat to the viability of the project arose not from civil society, but within the Peruvian government itself. Lack of agreement regarding some terms of the contract and market prices made Shell discontinue business with Peru in 1998. In 2000, a new consortium won the bid for development of Camisea. Despite the intense criticism that the project is receiving now – regarding the low quality of the construction and operations and the insufficient commitment from the consortium to environmental and indigenous rights – the Peruvian Government has recently signed a contract for the exploitation of another neighboring gas field (Lot 56), which is called Camisea II.

Not surprisingly, the question of whether or not the Camisea Project is considered a success depends on the perspective and criteria on which the project's end result is evaluated. What we can learn from the Camisea Project is that project

sponsors deal with many stakeholders during the development lifecycle, each with different interests that need to be given due respect. Thus, depending on the understanding of those needs and the negotiation capacity of project sponsors, a large engineering project like Camisea has the potential to be more or less of a success to the various project stakeholders.

I. PERUVIAN BUSINESS AND POLITICAL CONTEXT

Camisea fields were discovered in the early eighties during President Fernando Belaunde Government. However, it was not until the year 2000 when the construction stage of the project started and 2004 when the operations began and gas actually started flowing through the pipes. During these twenty years of development, the Peruvian political context changed dramatically. Table 1 shows the evolution of the Peruvian Government during this period.

<i>Table 1: Political Evolution of Peruvian Government</i>	
Years	Context
Before 1980	Military government. No free press. Expropriation of lands of private owners.
1980 – 1985	President: Fernando Belaunde Democracy was restored and thus press was free again. The government followed a neoliberal economy but as the prices of metal decreased, there was an economic crisis, inflation and devaluation of the national currency. Also, two other key events during these years were the destructive impacts caused by the “Fenomeno del Nino” (weather phenomenon) and “Sendero Luminoso” (a terrorist group).
1985 – 1990	President: Alan Garcia Hyperinflation reached 7,649% in 1990 (see Figure 2) and a cumulative total of 2,200,200% between July 1985 and July 1990. The Peruvian currency, the “sol”, was replaced by the Inti in mid-1985, which itself was replaced the “nuevo sol” in July 1991 (one new sol = one billion old soles). Peruvian government suffered an economic downturn (per capita annual income fell to \$720, gross domestic product dropped 20%, and national reserves were negative \$900 million). Furthermore, due to the attempt to nationalize private banks, Peruvian government was affected by international financial isolation. Internally, there were several social protests as the economic situation spiraled downwards and as human rights violations and terrorism were on the rise.
1990 – 2000	President: Alberto Fujimori Drastic liberal economic reforms were executed; including an auto-coup, in 1992. These reforms, called “Fujishock,” helped Peru to re-enter to the global economy. The results of these measures were hyperinflation reduced to manageable levels, macroeconomic stability, and a running economy. International relationships were improved, especially with the IMF, and an extensive process of privatization was started. Several laws, including Law 26221, the organic hydrocarbon law, were created and modified in order to encourage foreign investment in oil, gas and mining. In addition, terrorism was reduced (“Sendero Luminoso” was defeated) and a peace treaty with Ecuador signed. However, at the end of the decade, there was a political scandal regarding corruption involving Fujimori’s assessor Vladimiro Montesinos. Fujimori left the country.
2000 – 2001	Interim President: Valentin Paniagua Organized new elections. Unified the government and integrated the country. Led a moderate government cabinet.
2001 – 2006	President: Alejandro Toledo Democracy was re-established. Although the popularity of the president internationally was low, the Peruvian economy actually performed well, averaging a 4% GDP rise from 2003 (see Figure 3). Two important construction projects started, the Camisea Project (gas facilities) and the Interoceanica Highway (to enhance exports to China, through Brazil). The Free Trade Agreement was signed with USA.
2006 - present	President: Alan Garcia Final winner in the second round elections. Beat radical left candidate Ollanta Humala.

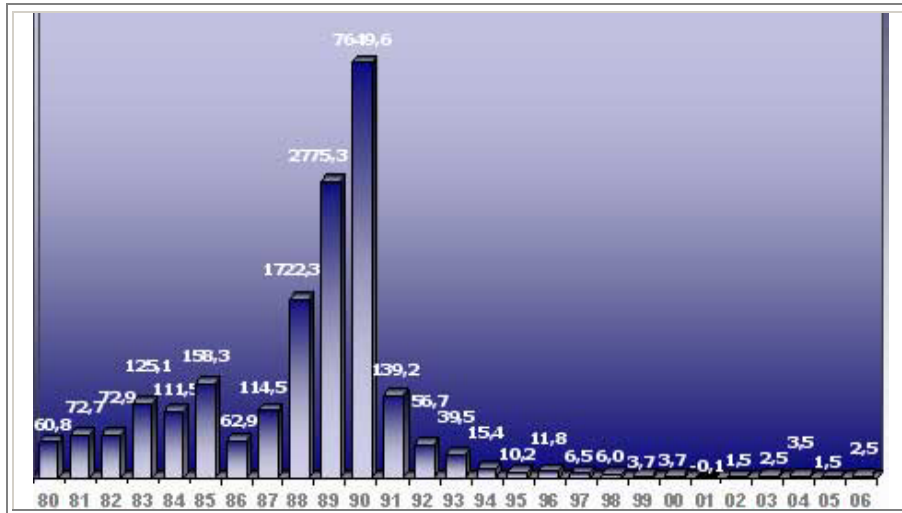


Figure 2: Inflation Evolution 1980 - 2006 (Annual Change %)

Source: INEI

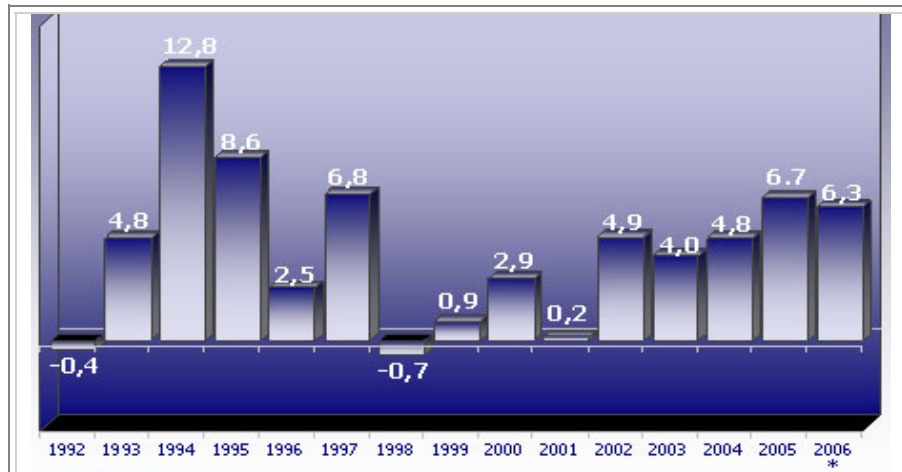


Figure 3: Gross Domestic Product 1992 - 2006 (Annual Change %)

Source: INEI

II. GAS & OIL INDUSTRY IN PERU

Peru is a source of oil and gas. However, since the eighties, oil production has declined significantly. The ratio of oil production in the year 2000 to the years of the 1980s is just 1 to 2. It is anticipated that demand for gas will grow in the coming years [Espinoza, 2000], especially for electrical and industrial use. Thus, the discovery of Camisea fields represented an opportunity to satisfy electrical and industrial demand of the Peruvian market. Table 2 depicts the gas demand forecasts for Peru.

Year	Million Cubic Feet/Day			Annual Growth		
	Electrical	Industrial	Total	Electrical	Industrial	Total

2,004	94.7	57.6	152.3			
2,009	164.2	79.7	243.9	11.60%	6.70%	9.90%
2,014	248.7	96.2	344.9	8.70%	3.80%	7.20%
2,019	351.6	116.4	468	7.20%	3.90%	6.30%
2,024	476.8	137.4	614.2	6.30%	3.40%	5.60%
2,029	629.1	162	791.1	5.70%	3.40%	5.20%
2,034	814.4	191.1	1,005.50	5.30%	3.40%	4.90%
2,039	1,039.80	225.4	1,265.20	5.00%	3.40%	4.70%
2,044	1,314.10	265.9	1,579.90	4.80%	3.40%	4.50%

Source: L. Espinoza, Nov 2000

CAMISEA FIELDS

Camisea fields, known as Block-88, are composed of the San Martín and Cashiriari fields. They are considered the most important natural gas reserves in Latin America and they are ten times greater than all other existing natural gas reserves in Peru. Camisea fields are located in a rain forest region known as Bajo Urubamba and they are part of the Echarate district, province of La Convención, department of Cusco. This is approximately 500 kilometers from the east of Lima city, in the Amazonian jungle. This area is considered by many organizations and I/NGOs like Amazon Watch as one of the most pristine areas in the world; moreover it is very close to important natural protected areas, like the “Manu,” a low-lying region of the Amazon Rain Forest.

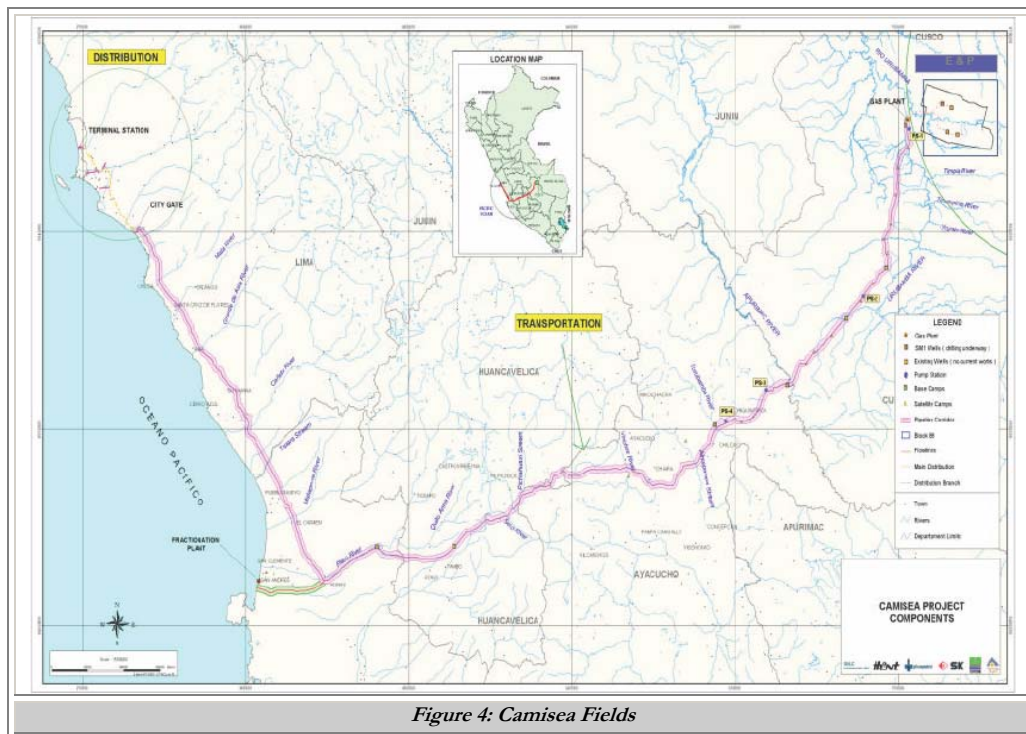


Figure 4: Camisea Fields

Source: LADB

The gas formations related to the fields are primarily the Nia and Vivian Formations. Vivian is probably the most important reservoir in the Peruvian sub-Andean basins. The composition of the field is as follows: 82.8% Methane

(CH₄), 8.65% Ethane (C₂H₆), 3.19% Propane (C₃H₈), 1.38% Butane (C₄H₁₀), 3.02% Natural Gasoline and the remaining 0.96% Inert Gases (Nitrogen + Anhidric Carbonic). See Figure 5.

	San Martín	Cashiriari		Total
	Nia	Vivian	Nia	
Reservas Tera PC	3.1	3.6	5.5	12.2
Participación	25.4%	29.5%	45.1%	100.0%
Composición				
Nitrogeno	0.55	0.99	0.73	0.76
Anhidrido Carbónico	0.18	0.10	0.27	0.20
Metano	80.59	83.89	83.34	82.80
Etano	9.80	8.07	8.39	8.65
Propano	3.80	2.95	3.00	3.19
Butano	1.70	1.26	1.28	1.38
Gasolina Natural	3.38	2.74	2.99	3.02
Total	100.00	100.00	100.00	100.00

Figure 5: Camisea Fields' Composition

Source: Camisea Feasibility Study 1995

The two main products obtained from the Camisea fields are Natural Gas (methane + ethane) and LGN (propane + butane). The proven hydrocarbon reserves, expressed in trillion of cubic feet (Tcf) for the Natural Gas and in millions of barrels (MMBls) for Gas Liquids are as follows:

Table 3: Camisea Fields Proven Reserves		
Block 88		
Field	Natural Gas (Tcf)	LGN (MMBls)
San Martín	2,86	247,34
Cashiriari	5,26	269,58
Total	8,12	516,92

Source: Perupetro

The energy of the Camisea gas fields is equivalent to 2800 millions of barrels of oil. (L. Espinoza, Nov 2000). Total energy related to the fields is 2980 Tera Watts Hour (1251 BTU/CF, 1Kwh = 3412 BTU). Assuming an efficiency of 55%, the energy of Camisea fields would be 1640 Twh. To put this into perspective, in 1998, total energy available in Peru was just 16.7 Twh. Even more striking, 1640 Twh is enough energy to provide all Latin American homes with electricity for more than 1000 years (600 million persons x 2000 Kwh per person per year x 1360 years = 1640 Twh).

Table 4: Camisea Energy of Proven Reserves			
Field	Natural Gas (Tcf)	Energy (BTU)	Energy (kwh)
San Martín	2.86	3.58E+15	1.05E+12
Cashiriari	5.26	6.58E+15	1.93E+12
Total	8.12	1.02E+16	2.98E+12

Source: Author calculations

III. CAMISEA PROJECT

Named by “Project Finance Magazine” as the “Deal of the Year” in 2004, Camisea Gas Project has in fact a long story of conflicts and negotiations throughout its development.

1. BACKGROUND

Camisea project can be divided into three phases. The first phase includes the initial exploration conducted by Shell in a 2 million hectare lot, in the Ucayali Basin (1981 – 1987). Shell executed 3,000 kilometers of seismic lines and the drilling of 5 exploration wells. The result of this initial exploration was the discovery of the two non- associated natural gas fields in the Camisea area: San Martín and Cashiriari. The second phase encompasses the exploration performed by the Shell/Mobil consortium in 1996-1998; 3 evaluation wells were drilled and an exploitation and marketing report was presented to the Peruvian government. The consortium decided not to continue with the project. Finally, in the third phase, which started in May 1999, the commission for the Private Investment Promotion (COPRI), through the Special Committee of Camisea Project (CECAM), drew up, called and executed two International Public Biddings for the Camisea Project development. The project contract was divided in two modules, the first one, for the exploitation of Camisea Gas fields and the second one, for the transportation of gas and gas liquids from Camisea to the Coast and the gas supply in Lima and Callao.

Phase	Gov	Date	Event
I	Belaunde	1,980's	The Oil Operation Contract was subscribed for Lots 38 and 42 with SHELL.
		1,983 – 1,987	As a result of drilling 5 exploration wells, SHELL discovers the Camisea Gas Fields.
	Garcia	March 1,988	The Terms Agreement for the exploitation of Camisea was signed between SHELL and PETROPERU.
		August 1,988	The contract negotiation with SHELL is completed without reaching an agreement.
II	Fujimori	March 1,994	The Agreement for the Evaluation and development of Camisea Fields between SHELL and PERUPETRO is entered into.
		May 1,995	SHELL delivers a Feasibility Study and requests start contract negotiation with PERUPETRO for the Camisea Fields Exploitation.
		May 1996	The negotiation is finished and the Contract of Camisea Fields Exploitation is entered into between the consortium SHELL/MOBIL and PERUPETRO.
		July 1,998	The consortium Shell/Mobil announce its decision of non-continuance with the Second Period of the Contract, thus the contract is terminated.
III	Fujimori	May 1,999	The Commission of the Private Investment Promotion (COPRI) agrees to carry out a promotion process for developing the Camisea Project by means of a segmented scheme that comprises separate business modules.
		May 1,999	On May 31, 1999, the Special Committee of Camisea Project (CECAM) call for International Public Bidding to grant the License Agreement for the Camisea Exploitation, and Concessions for Liquid and Gas Transportation to the Coast and gas Supply in Lima and Callao.
	Paniagua	Dec 2,000	The Contracts for the Camisea Project Development with the awarded consortiums of the Biddings carried out by CECAM were entered into.

Source: Perupetro

2. DESCRIPTION OF THE PROJECT

Production started in 2004 with a total of 8 wells, from which 6 would be for producing and 2 for injecting gas. The project consisted of capturing and transporting the Natural Gas from the San Martin and Cashiriari fields to the Liquid Separation Plant located in Las Malvinas. In this plant the water and the liquid hydrocarbons within the Natural Gas are separated and the latter is conditioned for its transportation through the gas pipeline to the markets on the coast, while the excessive gas is re-injected into the production reservoirs. The separated liquids are injected into the liquid pipe in order to be transported to the coast, arriving at a plant located in Pampa de Melchorita where the liquids are separated into commercial quality products (GLP and Condensates) and then are delivered to the market by tankers and tank trucks. Facilities are capable of a starting production of 9 million cubic meter per day, allocating the equipment in modules in such a way that processing modules in Las Malvinas and Pampa de Melchorita are added with new development wells as the production increases.

2.1. **Upstream Project:** consists of a 40-year license for the extraction of natural gas and liquid hydrocarbon. The license was awarded in February 2000, based on the highest royalty rate offered in the international public bidding, to the consortium led by with the participation of Hunt Oil Company of Peru L.L.C., SK Corporation and Tecpetrol del Perú S.A.C. (fully owned by Techint Group). Besides the extraction of the gas, this part of the project includes the processing stage at Las Malvinas and the fractionation stage in Pampa Melchorita Plant. The total investment of this part of the project is approximately \$730 million.

2.2. **Downstream Project:** includes three different 33-year contracts, the first for the transportation of gas from Camisea to Lima, a second one for the transportation of natural gas liquids from Camisea to the coast and a third one for the distribution of gas in Lima and Callao. The concession was awarded in October 2000.

2.2.1. **Transportation:** consists of the construction and operation of two pipelines, one for natural gas (714 km) and one for natural gas liquids (540 km). The liquid pipeline ends at the fractionation plant, located south of Pisco next to the Paracas Bay. The natural gas pipeline ends in the city of Lurin, located 30 km south of Lima. The pipeline design capacity is 70 MBPD (million barrels per day) with pump stations designed for an initial capacity of 50 MBPD. The pipe diameters are of 32", 24" and 18". The total cost of the Project is estimated at US\$820 million, which includes financing costs and funding of reserve accounts. This part of the project is being developed and operated by Transportadora de Gas del Perú S.A (TGP), which is the company developed by the consortium led by Tecgas N.V. (fully owned by Techint Group) with the participation of Pluspetrol Resources Corporation, Hunt Oil Company, SK Corporation, Sonatrach Petroleum Corporation B.V.I and Graña y Montero S.A. Commercial operation started on August 2004, per the concession agreements.

2.2.2. **Distribution:** this part of the project involves the distribution of natural gas to Lima and Callao and is under the responsibility of Tractebel. The project includes the construction of 60 km main distribution pipeline that will deliver gas to some of the largest industries and power generators in the cities of Lima and Callao. The planned initial investment will be about US\$ 55 million. Over the following years, additional networks will be developed to connect an increasing number of industrial, commercial and residential customers. The total investment is estimated at US\$170 million.

3. STAKEHOLDERS

The number of stakeholders that have been involved over the course of the nearly two decades of development activities is quite large and has fluctuated. Not all of them have been involved since the first discovery of the fields. For example, an interviewee remarked that at one point around 1994 Shell dealt with almost 200 stakeholders including NGOs and communities. However, many of these stakeholders are no longer present today.

In this study, stakeholders have been grouped, according to their main function, in five primary categories: government, development, communities, I/NGOs and financial entities. For purposes of this analysis, only stakeholders with major and current impacts to the project have been considered. Tables 6a thru 6e show the summarized list of stakeholders and some relevant data.

Table 6a: Government Stakeholders: General Information							
NAME OF STAKEHOLDER	HOME COUNTRY	# OF PARTICIPANTS	APPROX. ASSETS	AGE (YEARS)	INTERVENTION (PHASE)		
					I	II	III
Perupetro	Peru	<10	<\$100M	13	-	x	x
Petroperu	Peru	<10	<\$1B	37	x		
MEM (Ministry of Energy and Mining)	Peru	<10	(*)	37	x	x	x
CECAM (Special Committee of Camisea Project)	Peru	<10	(*)	8	-	x	x
DGH (Directorate General of Hydrocarbons)	Peru	<10	(*)	13	-	x	x
DGAA (Directorate General of Environmental Issues)	Peru	<10	(*)	13	-	x	x
OSINERG (Organism Supervisor of the Energy Investments)	Peru	<10	(*)	10	-	x	x
PROMUDEH (Ministry of Women and Human Development Promotion) [now MIMDES]	Peru	<10	(*)	10	-	x	x
INRENA (National Institute of Natural Resources)	Peru	<10	(*)	14	-	x	x

Source: Interviews, correspondence and website published reports and statements.

(*) These stakeholders are committees or entities part of the Peruvian government and ministries. They do not publish their asset values.

Table 6b: Development Stakeholders: General Information							
NAME OF STAKEHOLDER	HOME COUNTRY	# OF PARTICIPANTS	APPROX. ASSETS	AGE (YEARS)	INTERVENTION (PHASE)		
					I	II	II I
Shell Prospecting and Development Peru	USA	<100	>\$100B	100+	x	x	-
Mobil Exploration and Production Peru Inc	USA	<10	>\$100B	200+	-	x	-
Tecpetrol (Techint)	Argentina	<1000	<\$1B	51	-	-	x
Hunt Oil	USA	<100	>\$100B	72	-	-	x
Sonatrach	Algeria	<100	<\$10B	17	-	-	x
Pluspetrol	Argentina	<1000	<\$100B	30	-	-	x

SK Corporation	Korea	<100	<\$100B	53	-	-	x
Tractebel	Belgium	<1000	<\$100B	100+	-	-	x
Grana y Montero	Peru	<100	<\$1B	73	-	-	x

Source: Interviews, correspondence and website published reports and statements.

Table 6c: I/NGOs Stakeholders: General Information							
NAME OF STAKEHOLDER	HOME COUNTRY	# OF PARTICIPANTS	APPROX. ASSETS	AGE (YEARS)	INTERVENTION (PHASE)		
					I	II	III
RAN (Rainforest Action Network)	USA	<10	<\$10M	21	-	x	x
Amazon Watch	USA	<10	<\$1M	11	-	x	x
Project Underground	USA	<10	<\$1M	10	-	x	x
IUCN (International Union for Conservation of Nature)	Switzerland	<10	<\$100M	58	x	x	x
ECA Watch	International	<10	<\$1M	10	-	x	x
CEDIA (Centro para el Desarrollo del Indigena Amazonico)	Peru	<10	<\$1M	26	x	x	x
Shinai Serjali	Peru	<10	<\$1M	3	-	-	x
Amazon Alliance	USA	<10	<\$1M	16	-	x	x

Source: Interviews, correspondence and website published reports and statements.

Table 6d: Communities Stakeholders: General Information							
NAME OF STAKEHOLDER	HOME COUNTRY	# OF PARTICIPANTS	APPROX. ASSETS *	AGE (YEARS)	INTERVENTION (PHASE)		
					I	II	III
Machiguenga Tribe	Peru	<10,000	n/a	1,000+	x	x	x
Nahua Tribe	Peru	<100	n/a	1,000+	x	x	x
Kugakapori Tribe	Peru	<100	n/a	1,000+	x	x	x
Nanti Tribe	Peru	<100	n/a	1,000+	x	x	x
Kirineri Tribe	Peru	<100	n/a	1,000+	x	x	x
Yine Yami Tribe	Peru	<100	n/a	1,000+	x	x	x
COMARU (Consejo Machiguenga del Rio Urubamba)	Peru	<10	n/a	15	-	x	x
CECONAMA (Centro de Comunidades Nativas del	Peru	<10	n/a	35	x	x	x

Bajo Urubamba “Juan Santos Atahualpa”)							
FECONAYY (Federacion de Comunidades Nativas Yine Yami)	Peru	<10	n/a	29	x	x	x

Source: Interviews, correspondence and website published reports and statements.

(*) Assets from communities, like natural resources and their culture itself, has not a top value.

Table 6e: Financial Stakeholders: General Information							
NAME OF STAKEHOLDER	HOME COUNTRY	# OF PARTICIPANTS	APPROX. ASSETS	AGE (YEARS)	INTERVENTION (PHASE)		
					I	II	III
IADB (Inter American Development Bank)	USA	<100	<\$100B	47	n/a	x	x
CAF (Corporacion Andina de Fomento)	LA	<10	<\$10B	36	n/a	-	x
Citigroup	USA	<10	>\$100B	194	n/a	-	x
BNDES (The Brazilian Development Bank)	Brazil	<10	<\$100B	54	n/a	-	x
Ducroire, Belgian ECA	Belgium	<10	<\$1B	67	n/a	-	x
BICE (Banco de Inversion y Comercio Exterior)	Argentina	<10	<\$1B	14	n/a	-	x
EIBUS (Export Import Bank US)	USA	<10	<\$100B	72	n/a	-	x
Peruvian Investors	Peru	<100			n/a	-	x

Source: Interviews, correspondence and website published reports and statements.

The tables above illustrate the enormous variety of stakeholders involved in the Camisea project, originating from different world regions and bringing to the project different identities, cultural traditions and perspectives. The evidence shows that some of the stakeholders have been involved in the project from the very beginning, but that others have come in and out in different phases. Many of the stakeholders involved in Phase III were not involved in Phase I or Phase II. One important issue to highlight is the fact that the experience and size of the developers (i.e. Shell and Mobil) were significantly larger than that of the Peruvian Government and/or that of other stakeholders, suggesting a considerable mismatch in terms of bargaining power and resources. According to several informants, this mismatch may have played a crucial role during the negotiations. To better understand the nature of the stakeholders and to identify potential conflicts, Appendix 2 offers a summary of the mission statements and main goals of each of the stakeholders, which are important because they influence each of the stakeholders' decision-making processes and perceptions of success or failure.

IV. INTERACTION, CONFLICTS & NEGOTIATION PROCESS

As shown above, there were five main stakeholder groups in the Camisea Project. This means that there is a possibility for 26 kinds of different interfaces or interactions between groups (i.e. government to developer interfaces, government to NGO interfaces, government to government interfaces, etc.).

However, the analysis becomes far more complex when considering all of the stakeholders in each stakeholder category; with a dramatic increase in the possible number of interactions. Considering that each group can have from 10 to 100

unique stakeholders, the total number of stakeholders involved in the Camisea project is not merely 5, but it is estimated at somewhere between 50 and 500. Thus, there are no less than 1,125 trillion possible interactions among the set of stakeholders.

Of the 26 possible interactions among the five main stakeholder categories, five of them are presented below to explain the nature of each interaction and to highlight the kinds of conflicts that unfolded on the Camisea project.

1. Developer to Community

It is estimated that between 20 and 30 indigenous groups are living in voluntary isolation within the Peruvian Amazon [Kostishack, 2004]. The Camisea fields, located in the Bajo Urubamba, affects mainly four communities and the indigenous people in isolation that live in the Nahua Kugapakori Reserve. To successfully develop a project under these conditions, Camisea developers needed to reach consensus among the communities and in that way obtain legitimacy for the project. Hence, developers created a strategy, executed in the early stages of the project, that included stakeholders' engagement in the decision making process. For example, Shell's strategy embraced the following actions: several consultation processes, creation of a community liaison team, assessment and monitoring of biodiversity, capacity building with indigenous federations, support of professional associations and mother clubs, and an attempt to form an indigenous commission.

Despite the stakeholders' engagement strategy, conflicts arose, especially when community interests were not fully satisfied or understood by the developers. Cases 1 and 2 are examples of some problems caused by these interactions.

- Case 1: Differences between developers' and communities' interests. Developers needed to gain the communities support and approval of the project. Therefore, there were high levels of interaction with the community, with many formal and informal meetings over the span of several years. However, communities around the project, being indigenous and voluntary isolated groups, were not fully able to understand the ramifications of the developers proposals. There were language and translation barriers, and interactions were laden with subtle cultural misunderstandings. Furthermore, these groups were physically vulnerable to new diseases and viruses brought by the visitors; hence, the consequences from the attempt of the developers to interact were disastrous. There were several deaths caused by disease outbreaks, respiratory problems and diarrhea.
- Case 2: Problems with different coalitions representing the same community. As the developers tried to reach consensus with different communities, they found that several of those communities were represented by different local coalitions. The community Machiguenga was represented by two coalitions: CECONAMA and COMAR; the former was pro-engagement and pro-progress and the latter more cautious, traditional, and protective. This particular situation made the interactions between the developer and the community more difficult. For example in August 2003, while CECONAMA was satisfied with developers' environmental performance and the benefits they were receiving (investments, scholarships and basic infrastructure and utilities facilities development), COMARU strongly disagreed with developers performance and formally asked them to stop the works on the site, as well as to completely retreat from block 88.

2. Community to Community

It is logical to think that conflicts may arise between different categorical groups (i.e. developer to community, government to developer, and so on). This perspective is supported by the fact that each group tends to have a common high-level goal – i.e. government stakeholders may want to maximize revenues for the country and developers may want to maximize their returns. Nonetheless, as mentioned in section III, the fact that each group includes several stakeholders, and at the same time each of stakeholder includes hundreds of individual human beings each with varied ideas and emotions, only increases the possibility of conflicts among stakeholders or individual human participants who hold different ideologies, goals and needs.

In the case of Camisea Project, the biggest community close to fields is the Machiguenga. As Machiguengas people are being represented by two independent coalitions: CECONAMA and COMARU, conflicts and clear rivalry have grown between them. Some of the main conflicts that were identified are as follows:

- Case 3: Fight for leverage. As CECONAMA and COMARU are independent coalitions that negotiate separately their needs with the developers, one of their main concerns is to gain as much as leverage as possible to negotiate and maximize what they can obtain from developers. Hence, CECONAMA and COMARU have attempted to enroll in their coalitions as many of Machiguengas' groups and individuals as possible. For example, in 1998, there was a conflict regarding how the Nanti tribe (an isolated indigenous community) should be counted. While CECONAMA argued that they were "wild Machiguenga" – and thus could enroll as part of the CECONAMA coalition – COMARU argued that they were a separate tribe, set-apart from the Machiguena and holding their own self-identity.
- Case 4: Conflicts over interests. Although CECONAMA and COMARU represent the same community, they are dramatically different in their core ideology and essence. On the one hand, CECONAMA is pro-engagement and for progress and while negotiating with developers looks to promote new investments in the area, to fund the construction of new infrastructure and to develop educational opportunities for youth. On the other hand COMARU is very cautious and protective of its communities history and cultural sites and while negotiating looks to minimize community disruption and development impacts.

3. Government to Developer

Interactions between Government and Developers usually follow a formal pattern and selection of developers is handled through a bidding process open to international companies. This type of interaction can be extremely complex due to the existence of different entities and agencies in a countries government and due to the number of laws, policies and procedures that should be followed to complete a project. However, conflicts may also emerge when laws are not clear or worst when the legal framework is not at all appropriate. From our perspective, in the Camisea Project, this government to developer interface was perhaps the most critical; the two failed attempts that Shell made to develop the project are a clear example.

- Case 5: Political conditions. Camisea gas fields were discovered by Shell during Alan Garcia's government, which was considered by many as a nationalistic, internationally-isolated government. Shell had an oil license contract. They had paid a fee for for the right to explore and exploit oil reserves. However, because the product they discovered was gas instead of oil, the government of Peru argued that Shell had no contractual right to develop the gas fields. A negotiation ensued, according the dispute resolution procedures outlined in the contract. When the negotiation period was nearly at its end Shell asked for an extension in the negotiation process; but it was denied. Effectively, the Peruvian government made a unilateral decision to break-off the relationship with Shell and the international community. Despite laws which allowed Shell to own the lands for a period of 10 years without engaging in any kind of extractive activity, Shell left the country in 1988.
- Case 6: Modifications in contracts. The story in 1998 was different from the one in 1988. In the 1990s, the Peruvian government had adopted a strategy to enhance the oil and mining sectors, and for that reason they re-opened negotiations and in 1996 concluded a contract with Shell for further exploration and exploitation of Camisea. Even though the Peruvian political line-up seemed all in favor of the development of Camisea, Shell made a final decision not proceed with the project. In this case, the conflict arose in 1998, two years after the agreement to proceed with the project had been signed. This time Shell demanded three conditions in order to proceed to the construction and exploitation phases: distribution in Lima, free market to Brazil, and modification of the Peruvian Electricity Law. From the government perspective, Shell's requirements were considered an attempt to modify the 1996 contract, and therefore the government made the unilateral decision to block the project.

4. Financial Institutions to Developer

In the first two stages of the project, the role of financial institutions was passive and basically focused on the analysis of evaluating the financial feasibility of the project, the financial strength of the developers, and final approval of funds. The fact that funds are necessary to develop any venture has given certain power to financial institutions to be selective in the types of projects that they choose to support. It is in this way that financial institutions like the World Bank and the Inter American Development Bank no longer just consider, as a basis of project selection, the financial feasibility but also look to avoid detrimental environmental and social impacts that

could expose them to “naming and shaming”. Typically the interaction between financial institutions and developers is highly formalized, with developers being required to fulfill specific requirements and follow pre-established procedures. On the Camisea project, conflicts arose when the policies and procedures were not strictly followed or when third parties created interference.

- Case 7: Developers do not fulfill banks environmental guidelines. In 2003, U.S. Export-Import Bank rejected a request for a \$200 million loan to the Camisea Project. The main reason for the decision was that the project clearly violated the Export-Import Bank's Environmental Guidelines. This was the first time the bank had ever rejected a final application on environmental grounds. The bank had also rejected China's Three Gorges Dam, however that one was just a rejection of a letter of intent and not a final application. According to Mr. Aaron Goldzimer, Environmental Defense social scientist, this decision could have been different if the government and developers had been more consideration of the environmental and social concerns of the indigenous people.
- Case 8: Third party interferes in the interaction. It is important to highlight that, relationships between financial institutions and developers are highly vulnerable to third parties actions, especially those lead by I/NGOs. For example, the Rainforest Action Network, an INGO based in San Francisco, ran an intense campaign against Citibank from 2000 to 2004, naming them “The Most Destructive Bank in the World,” which forced the bank to withdraw funds for Camisea Project and to make their policies more environmentally oriented. This case is further discussed below.

5. I/NGOs to Developers

It would seem that in order to develop a project all that is needed is a signed contract and the necessary financial resources. However, it has been shown that legitimacy from communities is also a crucial ingredient to the successful execution of a major project. In recent years, a new class of organizations called “NGOs” (non governmental organizations) and/or I/NGO (international NGOs) have become ever-more common (Khagram, 2004). Registered as not-for-profits, they typically claim to represent disadvantaged peoples, issues of human rights and social justice, and environmental preservation. On Camisea, many of the I/NGOs involved were oriented to the protection of the rainforest and Amazon basin and to the defense of indigenous peoples. Although, NGOs do not usually negotiate directly with developers, they use indirect tactics like “naming and shaming” to force developers to be more transparent, accountable, and to take greater responsibility for impacts to local environment and communities. Thus, it has become increasingly important for developers to obtain approval from those I/NGOs in order to proceed with the project in a harmonious way. The cases below explain these interactions in more detail.

- Case 1: Harmed reputation through worldwide campaigns. Since the very beginning I/NGOs expressed their disapproval of the Camisea project, enraged that such a major project would be constructed in a virgin rainforest next to nationally-protected areas. The world wide web, a new invention in the early 1990s, was quickly adopted as a mechanism for publishing and disseminating information about the Camisea project. Many NGOs, such as Amazon alliance and Amazon Watch, dedicated an entire section of their website to raising awareness about the Camisea project. Others used paper and video publications presented to the media. Particularly at the beginning of the project, there were few direct interactions between NGOs and developers. However, as the campaigns caused damage to the companies' reputations and as the entire world -- the press, governments and different organizations -- became aware of Camisea situation, the developers have become somewhat more sensitive to the NGOs concerns. In Phase III of the project (lead by PlusPetrol and Hunt Oil), the war continues; several NGOs have painted the new developers as insensitive, irresponsible and low quality.
- Case 2: Conflicts in the field. The CEDIA and Shinai Serjali are grass roots NGOs that work hand-in-hand with communities to help them defend their rights and to negotiate with developers. Their role is critical due to the fact that there are extensive cultural and language differences between indigenous communities and developers. Most communities in the area do not speak Spanish, but even if they did, they would not have the proper education to understand what developers were trying to inform them. The active role that these NGOs play and the alliances they have made with some communities (i.e. CEDIA is a close supporter of the

COMARU coalition) have given them leverage to negotiate with developers in the field and to make the project less harmful for communities and environment.

6. I/NGOs to Financial Institutions

Conflicts and thus failures in projects do not always include developers as one of the involved parties. As briefly noted above, relationships between I/NGOs and Financial institutions are crucial to the development of any project. When I/NGOs realize that developers' activities are having a negative impact, they develop a strategy to block the project or at least to minimize the impacts. One strategy includes I/NGOs influencing developers, as explained above; another that has also been extremely successful has been for the I/NGOs to influence the Financial Institutions directly in an attempt to cut-off project funds. The withdrawal of CitiBank after the campaign by Rain Forest Action Network is an striking example..

- Case 1: I/NGOs raise specific campaigns. In the case of Camisea, the I/NGO Rainforest Action Network (RAN) ran a harmful campaign against Citibank, which was part of the their Global Finance Campaign against a number of commercial banks. That worldwide campaign, started in 2000 with a formal letter to the Citibank in which the I/NGO asked them to recognize their key role in the destruction of the world. The next steps were more than 50 demonstrations inside USA and afterwards more than 80 demonstrations in 12 countries on 5 continents. Being named “the most destructive bank in the world” and being buffeted with slogans like “Corruption on the Inside, Destruction on the Outside”, Citibank finally decided to withdraw funds to Camisea on the condition that RAN’s attacks would cease. The campaign was finally considered a success in 2004, when Citibank announced their New Environmental Initiatives.
- Case 2: I/NGOs with specific focus on Export Credit Agencies (ECA). ECAs are public agencies and entities that provide government-backed loans, guarantees and insurance to corporations from their home country that seek to do business overseas in developing countries and emerging markets. According to ECA Watch, an I/NGO that seeks to reform ECAs’ policies, ECAs are currently financing more than double the World Bank Group's number of extractive sector projects in the oil, gas, and mining sectors. Moreover, due to ECA’s lack of environmental and social policies, projects financed by these entities are often considered by NGOs to be detrimental to the world. Developers of Camisea might have taken into account the possible consequences of having as a lender the National Social and Economic Development Bank (BNDES) which is known to have financed with export credit agencies several environmentally destructive projects like Son La Dam in Vietnam and the Three Gorges Dam in China. However, up to now, it does seem that I/NGOs actions have had much of an impact to the BNDES – Developers relationship.

V. LOOKING FORWARD

Camisea was – and still is – a controversial project, a crucible for stakeholder conflict, and a dramatic example of how the success of modern day mega projects hinge on complex interactions between stakeholder parties. Going beyond the specifics of the Camisea case, several generic lessons and trends may be extracted concerning the management of stakeholders on large mega-projects:

Importance of stakeholder mapping and consultation strategy. The initial stakeholder mapping and engagement plan developed by Shell was the key strategy that led Shell to successfully commence the project in 1996. Some of the main features included in the strategy were a specialized team that identified and managed stakeholders relationships, a specialized organization that monitored environmental impacts, and commitment to a strong environmental policy within the company.

Importance and new role of financial institutions. The execution of a project is highly dependant on the availability of funding, thus financial institutions play a critical role in the success of any project. Recently, financial institutions have started to play a more active role in project development and are being more selective in the types of projects that they will support. One of the main reasons for this change may be the new and highly effective “naming and shaming” strategy that NGO’s are now running against the financial institutions that are known to support so-called “destructive projects”. Citibank’s withdraw of funds to Camisea Project and recently IADB’s rejection of new funds for Camisea II are two examples.

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Key relationship, developer – government. Although there are many important relations within a project that must be managed carefully, the relationship between the developer and the government is perhaps the most important of all. For example, during the Garcia government, relationships between Peru, Shell and others in the international community were not strong enough to reach an agreement to develop Camisea. On the contrary, President Fujimori's privatization policy and international relationships contributed to enhance the Shell – Peruvian government relationship and finally to re-start the project. However, later disagreements between these parties were the cause of another break up of relationships and interruption to the project. Finally, President Toledo's determination to develop the project led to a new contract with new developers; government strong commitment to the project and relationship with developers led to the final execution and operation of Camisea.

Differences in cultural cognitive institutions, the hardest issues to solve: Differences among stakeholders' positions can be solved only if there is a common interest among the parties. Therefore, if there are differences in their deep interests, like the ones in their missions' statements or their inner cultural-cognitive institutions, conflicts may arise and consensus would be difficult to reach. An example that better explains this issue is the case of the isolated communities and the project developers: on the one hand developers believed they should contact those communities to provide them with the benefits of modern societies, and on the other hand communities' beliefs were oriented towards a voluntary isolation to live in harmony with the nature. The lack of understanding of the situation from part of the developers brought illnesses to communities and a harsh reaction from local federations and I/NGOs.

Internal rivalries within a stakeholder, a weakness and/or strength while negotiating: To maximize the benefits a stakeholder can get while negotiating, all the members should work together and have their goals aligned. Otherwise, internal conflicts may arise, giving the chance to the other party to take advantage of the situation and get partial concessions/benefits in the negotiation process. In the case of Camisea, rivalry among Machiguenga's federation helped the developer to obtain partial legitimacy for the project. Depending on which side we stand, these internal rivalries could be considered as a weakness or a strength.

Despite the fact that developers or stakeholders have learned through this 20 years old process, how to manage stakeholders' issues and therefore finally put together and run the project, conflicts are still arising and affecting Camisea; IADB last decision of not providing funds for the second phase is an example of those new conflicts. Finally, the following recommendations could be taken as a resource to overcome some of the difficulties that arise while developing multi-stakeholders projects:

1. Evaluate the country environment

Any project stakeholder should understand and evaluate not only the *physical* environment of a project like location, access and topography, but also the *social* and *political* conditions of the country where the project is supposed to be developed. Inappropriate legal framework, bad international relations, lack of investment conditions or political instability should be a warning either for the developer or government that it's not the right moment to develop a project. For example, a reason that might have affected the failure of Camisea in the 1980s might have been the political approach of the government in that time; and a reason that might have affected the failure of Camisea in the 1990s might have been the lack of experience (and proper organizations) from the government regarding gas projects (regulations and environmental polices)

2. Understand who the stakeholders are

Before pursuing any venture it is important to know who all the parties involved are – in each phase of the project – and which are the interests that drive their decisions. Although it could seem an easy task, in the case of multi-stakeholders' projects the complexity increases due to two main reasons: first, the *large number of participants* a project has and second the constant *change in the stakeholders' list due to projects' duration*. In the case of Camisea, having 200 stakeholders just at one point was a reasonable number; however, while analyzing the project from its beginning, it is noticeable that the list of stakeholders involved during these more than 20 years have significantly changed. For example there have been different developers (before Shell, now Pluspetrol) and several governments involved (from Belaunde to Toledo)

3. Awareness and understanding of institutional differences

Knowing beforehand who the stakeholders are and which interests drive their decisions help to identify the possible areas of conflict among different stakeholders and thus help to select and develop the best strategy to handle the

project. Especial attention should be given to the cultural-cognitive institutional differences because those may be the most difficult if not impossible to solve. This recommendation is linked to 1980s disastrous incursion of Shell in Camisea fields, where the developer was not aware of the institutional differences among the isolated communities and themselves. Developers did not clearly understand what these communities valued as good for them: the isolation; hence they interacted with those communities causing a huge tragedy in the area.

4. Reach project legitimacy

Knowing who the stakeholders are is not enough. The project should be legitimized by each stakeholder in order to develop it without interruptions. In this case, the stakeholder with higher interests in having the project done usually takes the leadership in the process. Recommendation #2 and #3 are useful to develop the right strategy for legitimating the project. In the case of Camisea, initially, developers took the leadership role to get legitimacy for the project; however, at one point Peruvian government was highly interested in the final execution of Camisea and run campaigns – through the media – explaining the benefits and impact of Camisea in Peruvian economy. That campaign, which started in 2,000 approximately, was the key element that contributed to get legitimacy from Peruvian population and international organizations.

5. Show and have real commitment with environmental and indigenous issues

Two of the main conflicts in any project are the ones regarding environmental impacts and indigenous rights. It has been proven that stating environmental and indigenous protection policies are an important step to align goals among stakeholders. However, having written policies is not enough, a consistence between policies and behaviors is important too. In other words, stakeholders should show and actually have sincere and strong commitment and respect towards the environment and indigenous people. An interviewee from a financial institution remarked that although Shell and the new consortium that developed Camisea had the same written polices, it was obvious that the latter had lack of commitment. Afterwards, conflicts arose between the new consortium and that financial institution.

6. Inclusion of a multi-disciplinary team

A typical mistake in construction projects is to have teams with homogeneous background (i.e. just engineers). However, a multi-stakeholder construction project, not only deals with engineering issues; moreover, most of the big problems and flaws that take place in these types of projects are not engineering related. As explained in this paper, some of the problems a project has to face are financial, environmental, legal and/or social. Therefore, to succeed in this type of projects, the teams involved should be multi-disciplinary, having as team members professional with different backgrounds, from engineers to social scientists and from biologist to lawyers. Such a diverse team, with their different perspectives, would significantly contribute to the better understanding and success of the projects.

7. Financial institutions, leaders for a more sustainable world

Nowadays, most of the construction projects are financed. Furthermore, it is evident that the financial institutions are the ones that make the final decision regarding which project gets funds and thus are executed and which do not. That selection process has a great impact in the type of projects that are to be built; therefore, financial institutions have great influence in the development of a sustainable world. Initiatives, like the ones of the World Bank and the IADB, which have included environmental and social requirements to provide funds to developers, should be followed by all financial institutions. In my opinion, this type of proactive position – that includes strict environmental and social requirements as part of a loan application – if standardized among all financial institutions, not only would contribute with the countries' development but also would minimize the conflicts among the others stakeholders as NGOs and local communities, and thus enhance a successful project development.

8. “All for one, one for all”

As mentioned before, success in a project depends on the equilibrium of the stakeholders' interactions. Any conflict between two stakeholders has an impact on the other relationships and thus in the overall performance of the project. The key to reach that equilibrium is the already known team spirit and collaborative work, but not only just among members of one stakeholder but also among different stakeholders' members. It would seem illogical to think that this is feasible due to the large number of stakeholders and thus interests a project has; however, an alignment of interests could be a first step to minimize these differences and thus the possibility of conflicts. Nonetheless, if conflicts arise, which is common on these mega projects, the negotiation process should be solved through a win – win mentality, which means that there is neither a winner nor a loser, but that all the parties' work

together to maximize all parties' benefits. The understanding Shell had in the 1990s about communities' main interests and the inclusion of those interests within the company's goals is an example of this strategy. At the end, it seems that a successful multi-stakeholders' project management could be summarized in the famous phrase: "All for one, one for all--that's our motto, is it not?"

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