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A proposed framework for solving conflicts of mining projects

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Abstract

The purpose of this paper, is to propose a framework for solving conflicts of mining projects, based on the inclusion of: a) the alignments to the project management framework of the Project Management Institute, b) the implementation of an Integrated Sustainable Development Program, c) a public surrender of accounts, and d) the continuous audit processes by internal institutions and by external, independent and international institutions. This proposed framework was contextualized to the Tía María mining project in Peru; also, a generic solution framework is presented. Finally, some recommendations for future researches were proposed.

Keywords: framework, solution, conflict, mining project, Peru

Introduction

Social conflicts in mining projects in Peru were increasing in previous years; however, a framework for solving them is not present yet by the side of the political managers. The Defensoría del Pueblo (2015) of Peru, indicated that at march 2015, 94 of 141 cases of social and environmental conflicts (active and latent) were related to mining projects; in other words, 66.7% of those cases are related to the mining activities. This situation didn't contribute to sustainable development, as was indicated by Triscritti (2013) who mentioned that "To generate sustainable development, three actors ought to be able to negotiate the management of mining projects and revenues as equal partners: the Government, civil society and the private sector. Sustainable development goes hand-in-hand with good governance." (p. 448).

Since 2013 until 2014, existed a decrease of 19.22% of the mining exports, since US\$ 23,030 millions in 2013 and US\$ 19,317 millions in 2014 (Sociedad de Minería, Petróleo y Energía, 2014), which represented the 50.5% of US\$ 38,252 millions, the total exports in Peru in 2014 (Minería On Line, 2015). Also, in 2014, Peru had the third major volume of copper exports in the world, being 1.3796 millions of metric tons (RPP, 2015) and a value of US\$ 8,807 millions (Minería On Line, 2015), representing the 46% of the total mining exports. It is important to remark that the price of the copper was descending since US\$ 9,533.2 until US\$ 6,042.09 per metric tons (Datos Macro, 2015). These statistics are consequences of the lack of the application of a framework for solving the conflicts of the mining projects in Peru.

The conflict of Tía María mining project caused hundreds of wound people by the side of the police and by the side of the population of Islay Province, in the Arequipa Region and also, the conflict caused dead people due to the negotiations are not being realized in a pacific way. An urgent framework is required for solving this conflict, for avoiding the wound and dead people, and for avoiding the effects in the expected economic growth of Peru. This situation is not unique in Peru, and occurred similarly in other mining projects in diverse countries.

Some social conflicts caused by mining projects in the Peruvian Government

The inadequate political management and the lack of an integral strategy which guarantees the realization of investments and the tranquility of stakeholders, in Peru, has caused that some of the most important mining projects were not executed, which were: Conga with an investment

of US\$ 4,800 millions (Newmont, n.d.), Tía María with an investment of US\$ 1,400 millions (Perú21, 2015a), Michiquillay with an investment of US\$ 1,000 millions (Semana Económica, 2014), and Tambo Grande with an investment of US\$ 405 millions (Semana Económica, 2015), with a total of investment of US\$ 7,605 millions, without the annual incomes that could be generated by the mining canon, the direct and the indirect labor positions (per each direct labor positions, the mining projects generate nine additional labor positions), and the development of the correspondent regions. Also, Gestión (2015a) indicated that foreign investors reduced their property of Peruvian bonds in the local currency (new soles) since 58% until 38%, motivated by the decrease of the price of the copper and other minerals, and the decrease of the value of the new soles respect to the US dollars, situation that converted to Peru in a less attractive country for investing due to the reduction of trust.

Triscritti (2013) explained that “Over two decades of mining conflicts across Peru offer a vast source of valuable information for authorities, miners and communities to collectively evaluate the viability of a mining project.” (p. 447). In respect to the mining projects in Peru, Gravelle (2012) indicated that “Lastly, with close to 400 prospects and exploration projects in Peru, it’s essential to assure that the investment creates collective and sustainable benefits for all involved in order to avoid full dependency towards the mining activity” (p. 66), in contrary to the opinion of Coxshall (2010), who indicated that “Peru’s positive approach to foreign investment contrasts with many of its neighbors (e.g., Venezuela, Bolivia, Ecuador, and Brazil) that are also resource-rich developing nations. These countries generally reject US and Western investment, especially in their natural resources, favoring instead regional integration as a Latin American bloc to empower themselves in international relations.” (p. 43).

In contrary to the opinion of Coxshall (2010), we think that the population of the countries of Latin America are not being well communicated about the benefits of the mining projects and that the real sustainable development for the populations are commonly unclear or not presented; also, the mining projects of diverse international firms commonly produced diverse damages to the environment, situations that it is important to be corrected for the acceptance of the population, coinciding with John Gravelle, PwC Mining Leader for the Americas, who indicated that “To avoid potential negative impacts, it’s necessary to talk to the community regarding the use of land in advance of setting up the operations in the region. It’s important to evaluate the future productive viability of the land that is left available for each affected family or community” (Gravelle, 2012, p. 6) and “Mining activity also has the potential for negative environmental impacts, especially for water and soils, if it is not made in a suitable way. Companies may want to consider an elaboration of environmental handling and impact plans in participative form.” (Gravelle, 2012, p. 6).

About the case study of the operations of the mining company Antamina in the district of San Marcos in Peru, Szablowski (2002) indicated that “The reversal of this order served to incense non-resident land owners, who found the symbolic capital of their own payments markedly devaluated within the local moral economy (GRADE, 2000; Alberti and Mayer, 1974)”. Also, Szablowski (2002) cited to GRADE (2000), development research institute which was contracted to evaluate the resettlement process and argued that “the monetary payments offer no guarantee that medium or long term living standards have been maintained” (p. 264).

The Tía María mining project

At March 2015, BMI Research (2015) indicated that “Southern Copper is expanding operations, and hence total mined output, at its Cuajone and Toquepala mines, and received

final approval from Peruvian environmental regulators in August 2014 to proceed with its Tía María project, which will produce 120kt a year and is set to begin production in H117.” (p. 14); however, diverse protests around that mining project occurred in the districts around the zones of the mining project (the districts of Cocachacra, Mejía and Dean Valdivia, in the Islay province in the Arequipa Region.), and also, in the city of Arequipa, existed mainly in March, April and May 2015. According to Presidencia del Consejo de Ministros del Perú (2015), the main characteristics, facts and expectations of the Tía María mining project were the following:

- A. Tía María is located in the districts of Cocachacra, Mejía and Dean Valdivia, in the Islay province in the Arequipa region. The direct influence area is formed by the districts of Cocachacra, Dean Valdivia and Mejía, and the indirect influence area is formed by the districts of Bombón, Islay and Mollendo (considering the contiguity with the direct influence area).
- B. Tía María mining project includes the exploitation of two open pit mining sites:
 - a. “La Tapada” (425 338 000 tons of oxidized copper with a law of 0.43%).
 - b. “Tía María” (225 377 000 tons of oxidized copper with a law of 0.29%).
- C. In the first phase, only “La Tapada” will be exploited, in the second phase “La Tapada” and “Tía María” will be exploited, and in the third phase, only “Tía María” will be exploited.
- D. Tía María mining project initiated developed since 2003, the following activities:
 - a. Exploration activities, between 2006 and 2008.
 - b. Elaboration of the first environmental impact study, between 2008 and 2009.
 - c. Elaboration of the second environmental impact study, between 2012 and 2013.
 - d. Two informative workshops as parts of the second environmental impact study, in the town Dean Valdivia at October 24th, 2013 and October 30th, 2013, both with the assistance of 600 people.
 - e. Public audience in the town Cocachacra at December 19th, 2013, with the assistance of 1600 people.
- E. Tía María mining project is not in the Tambo valley. The most near mining installation from Tambo valley is to three kilometers and the most near town “El Fiscal”, is to four kilometers. In the case of Cocachacra, the mining project is to seven kilometers. Also, Tía María mining project will be located in desert areas between 200 and 900 meters, which are not valleys, which are not part of the Tambo valley and don’t have agricultural capacity.
- F. Tía María mining project will use sea water which will be desalinated by reverse osmosis. Of the total seawater, the 40% will be used in the mining process and the 60% will be returned to sea in the form of brine through a pipeline of 856 meters since the high tide line and a depth between 25 and 30 meters, for avoiding the generation of environmental impact to the aquatic wildlife and hydro-biological resources.
- G. The rock extraction process in the open pit, is realized with blasts and explosions which don’t use water, not being a metallurgical or chemical process which requires water.

- H. The geological composition of the subsoil of the pits, has low porosity, unlike the geological composition of the subsoil of the valley which is porous and allows the aquifer is fed by the irrigation which agriculture produces. Additionally, if the aquifer would be flood, that situation would not permit the development of the mining activities. Also, the hydrogeological study indicates that the ground waters in which the mining project is located, has no connection to the Tambo river's aquifer.
- I. The Tia Maria mining project will not process minerals in the type metallurgical processes smelting or refining, but called metallurgical leaching and electrolysis processes that do not generate any emissions into the air. Leaching is a hydrometallurgical process, which consists in obtaining copper found in oxidized ores, which are separated by applying a solution of sulfuric acid and water. Electrolysis recovers ore from the leaching solution. Then circulates a low intensity electric current between the anode and the cathode copper, is formed. These processes don't generate tailings and don't generate air emissions, less acid rain.
- J. The sulfuric acid used in the leaching process comes from Ilo, where it is produced to capture the SO₂ from the chimney of the smelting and is transported by sea to the port of Matarani (which is on the opposite side of the Valley of Tambo) where via a railway to be built by Southern Copper Corporation, will be transported to the leaching area without crossing any agricultural or populated area.
- K. The Tía María mining project has the following phases: a) drilling and blasting, b) crushing, c) deposits for leaching, d) leaching, e) extraction by solvents, f) electrolysis for obtaining the copper cathode, and g) export.
- L. The Tía María mining project will generate: a) 3000 labor positions in the building phase, b) 650 direct labor positions in the operation phase, and c) 3500 indirect labor positions in the operation phase.
- M. The annual increase of fees and royalties (US\$ 3.00 / lb Cu) will be: a) for the Arequipa region: US\$ 270 millions by year, b) for the Islay province: US\$ 64 millions by year, and c) for the Cocachacra district: US\$ 34 millions by year.
- N. Other benefits of the Tía María mining project will be the following:
- a. Education: improvements of services, educational infrastructure, academic competencies, and technical training.
 - b. Health: improvement of sanitation services (water and sewer) and improvement of health services.
 - c. Support to local activities: agriculture, animal husbandry, fishing, and aquaculture.
 - d. Increase of commercial activities.

However, according to Defensoría del Pueblo (2015a), the main characteristics, facts and expectations of the Tía María mining project are the following:

- A. Case: Farmers, villagers and local authorities in the province of Islay are opposed to the Tía María mining project of the Southern Peru Copper Corporation (SPCC), due to fear of negative environmental impacts which could be generated, and consequently affect the agricultural activity in the province. It should be noted that this case was reported since August 2009 until April 2011 when it will reach a solution with the issuance of Directorial

Resolution No. 105-2011-MEM-AAM of the Ministry of Energy and Mines, which declared inadmissible the Environmental Impact Study of Tia Maria mining project, presented by the SPCC.

- B. Location: Districts of Dean Valdivia, Cocachacra and Punta de Bombón, in the province of Islay, in the Arequipa region.
- C. Primary stakeholders: authorities (mayors of Islay, Cocachacra, Punta Bonbon and Dean Valdivia), farmers and residents of the districts of Cocachacra, Dean Valdivia and Punta Bonbon, in the province of Islay, Defense Front of Tambo Valley, Irrigation Board of Users of Ensenada-Mejia-Mollendo, Board of Users of Tambo Valley, SPCC, Ministry of Agriculture and Irrigation (MINAGRI), the Ministry of Energy and Mines (MEM) and the Ministry of Environment (MINAM).
- D. Current Status: no dialogue. The facts and expectations were the following:
 - a. At 21 March 2015, the development table was installed in Mejía district. This meeting was attended by the Regional President of Arequipa, the mayor of the province of Islay, the Minister of Agriculture and Irrigation, the Minister of Energy and Mines, the Ministry of Environment, the Ombudsman and social leaders. The following technical committees were formed: i) Agriculture; ii) Mining, Energy and Environment; iii) Social Development; and iv) Production and Transportation Infrastructure.
 - b. It was agreed that at 1 April 2015, the technical tables of Agriculture and Mining, Energy and Environment were installed; and that at April, 8th, 2015, Technical Committees for Social Development, and Production and Transportation Infrastructure.
 - c. At 22 March 2015, a group of residents of the district of Mollendo held a demonstration to support the start of the mining project. No incidents of violence were reported.
 - d. At 23 March 2015, the residents of Valle de Tambo began an indefinite strike against the Tia Maria mining project of the SPCC. The demonstrators blocked the main roads and moved to the Plaza de Armas de Arequipa, where they burned objects and announced a series of protests. Schools, trades and transport activities were paralyzed. Polices moved to Arequipa for safeguarding the public order. No clashes were reported.
 - e. At 24 March 2015, the mayors of Islay, Cocachacra, Punta Bombón and Dean Valdivia participated in a rally and in the protests. This day, a clash between protesters and the police was recorded in the town El Fiscal, as a result that left 9 people arrested and 12 people injured.
 - f. The commissioners of the decentralized office of the Defensoría del Pueblo in Arequipa, moved to that zone to assist for restoring the calm, to carry out rights protection and the attention to dialogue.
 - g. At 25 March 2015, Congressman Jorge Rimarachin expressed support for the strike called by the Board of Users of Tambo Valley, at a rally in the district of Cocachacra.
 - h. At 28 March 2015, on the sixth day of strike, a new confrontation between the protesters and the police in Cocachacra occurred. 8 people were injured.
 - i. At 29 March 2015, a group of people led by the mayors of Islay, Cocachacra, Dean Valdivia and Punta Bombón began a trek from the district Cocachacra to Arequipa in order to attract the attention of the Prime Minister, for transferring the dialogue table into the district of Cocachacra, with the authorities and local leaders.

- j. At 30 March 2015, there was a confrontation in the Santa María Town Center between protesters and the police. Three people were injured.
- k. At 2 April 2015, due to the call made by the Regional President of Arequipa, met in Cocachacra the Deputy Minister of Energy, the Deputy Minister of Agriculture, the mayors of: Islay, Dean Valdivia, Punta Bombón and Cocachacra, and some leaders of civil society. At this meeting, the provincial authorities and the directors of the opposition to the mining project, indicated the following concerns:
 - 1. By the location of the project. Because this will be in the upper valley at a distance of 4 km.
 - 2. The 138 observations of the environmental impact study, made in 2011 by UNOPS, were not raised, in the new environmental impact study of the mining project, approved in 2014.
 - 3. The new environmental impact study had been prepared, according to their claims, with false data.
 - 4. The implementation of the mining project can generate Tambo river pollution due to the dust generated by mining and acid rain.
- l. Finally they reiterated the requirement of retreat of SPCC without reaching any agreement. Moreover, it continues the indefinite strike in the districts of Cocachacra, Punta de Bombón and Dean Valdivia. Therefore, business establishments are closed, and schools are closed due to officially suspended classes. By contrast, activities in the districts of Matarani, Mollendo and Mejia continue normally.

Additional facts were told by El Comercio (2015a) and were the following:

- A. At 23 March 2015, the protests began in the districts of Cocachacra, Dean Valdivia and Tambo valley. After some weeks, the protests appeared in Mollendo and Matarani, where occurred the last clashes among the protesters and the police. With the entering of military personnel to Mollendo and Matarani, a relative calm returned; however, the tension changed to Cocachacra again.
- B. At 27 March 2015, when the protests were not massive and the organizers of the protests accepted to negotiate with the Regional President of Arequipa, Yamila Osorio, the public relationships director of SPCC, Julio Morriberón, announced in Radio Programas del Perú (RPP) that Tía María mining project will be cancelled. The incredible fact after that was that the President of the Board of Directors of SPCC, Oscar Gonzales Rocha, disallowed to the spokesman and assured that the project was continuing in walking.
- C. To five kilometers from Cocachacra, is Pampa Blanca bridge, which importance is based on the hub position for getting the Panamericana Sur highway and to arrive to the distribution markets; the blocking of that highway means the stoppage of this region.
- D. At 22 April 2015, a large claim occurred and the police kills to Victoriano Huayna (65 years old and the first dead person of this conflict), with the impact of a bullet. Also, in that day, an agent of the DINOES (National Direction of Special Operations), showed “Filosofexxx” as his name and not his real name, and tried to show to Antonio Coasaca, a protester, as an attacking person with a weapon named “miguelito”, which was shown by that police. Then, the Minister of Interior, José Luis Pérez Guadalupe, ordered the retirement of the personnel of the DINOES.

- E. At 6 May 2015, a mob converted the protests in a wild lynching to four policemen and one of them, the sub-officer Alberto Vásquez Durand, was beaten in the head with rocks and chains until his skull was opened and after that he was thrown into a ravine. After that, the policeman was rescued as unconscious state and died at dawn of 9 May 2015.
- F. Where the policeman was in intensive cares, the organizer of the protests, Pepe Julio Gutiérrez, in an audio broadcasted by Willax TV, talked with the lawyer Jesús Gómez Urquizo about a payment of US\$ 1.5 millions for finishing the protests and in respect to the audio, Jesús Gómez Urquizo indicated that his intention was to pull the Gutierrez's tongue and that he didn't payment that amount of money. Also, it is important to remark that SPCC denied that sent Gutiérrez to negotiate.
- G. At 11 May 2015, hundreds of policemen were to a side of the Pampa Blanca bridge, and tens of military personnel were to the other side, all of them waiting the order. The Minister of Interior indicated that the policemen and the military personnel were not there for defending the mining project, but to guarantee the order in a blocked zone by more than one month.

Also, El Comercio, Gestión and TV Perú Noticias explained that:

- A. Pepe Julio Gutiérrez Zevallos, President of the titled "Frente de Defensa del Valle del Tambo" (Group for defending the Tambo's valley), was arrested at Friday 15 May 2015 in the Pampa Blanca bridge, in the Cocachacra district in the Islay province, at 10 am., and was charged due to the following crimes: unrest, resisting authority, embezzlement, criminal association, extortion, perpetrator of the death of Alberto Vásquez Durand, sub-officer of the National Police of Peru (El Comercio, 2015a).
- B. At the afternoon of Friday 15 May 2015, after the capture of Pepe Julio Gutiérrez Zevallos, Ollanta Humala Tasso, the President of the Republic of Peru, told a message to the nation in which indicated that is important the respect to the international contracts, the defense to the authority principle, and that Southern Copper Corporation must express their next steps for continuing with the mining project (TV Perú Noticias, 2015).
- C. The historical center of Arequipa was invaded by protesters and the policemen had to retire for avoiding more clashes; also, the districts of Mollendo and Cocachacra were scenarios of more violent acts with a result of eight wound policemen (Gestión, 2015b). Also, Gestión (2015b) indicated that the roadblocks with stones, were not permitting that trucks, buses or private cars, enter or leave Arequipa.
- D. At 15 May 2015, after the message to the nation of Ollanta Humala, the Executive President of Southern Peru Copper Corporation, Óscar González Rocha, sent a message indicating that the Southern Copper Corporation proposed an interval of sixty days to the execution of the Tía María mining project in the Islay Province, one day before the strike of seventy two hours ended (El Comercio, 2015b).
- E. Jorge Del Carpio, one of the organizers of the protests and director of the "Asamblea Popular de los Pueblos de Arequipa" (Popular Assembly of the towns of Arequipa), indicated that the message to the nation of Ollanta Humala Tasso at 15 May 2015 is the reiteration that thinks not fulfill its commitment to the people of Valle del Tambo who voted for him in 2011. Also, Jorge Del Carpio found that the announcement of Southern

Peru to pause the project to clarify the doubts, fears and concerns of the population, was a mockery (El Comercio, 2015a).

The ethical, managerial and social conflict of Tía María mining project

With the social conflict in the Tía María mining project in the province of Islay of Arequipa region in Peru, we see once again, the consequences of the existence of a porous state with no inclusive extractive institutions that do not allow the sustainable development of towns. Alvarez (2015) suggested that Peru could be considered as a porous state, due to its filtrations which derived not only on deficiencies and coverage problems, but on corruption to national, regional and local levels. Acemoglu and Robinson (2012) indicated that the countries which failed in their development have no inclusive extractive institutions, which managers seek the power and the growth to short term through the extraction of natural resources, and use of the benefits of that extraction for their own benefit. It is very difficult to think that these social conflicts, which are the product of fear of the consequences of mining, can be solved by sending ministers of the Peruvian State to call “terrorists” or “criminals” to the organizers of the protests, though some of them are free prisoners, when protests have origins in completely valid grounds, especially considering that until a few years ago, some people who were prosecuted for corruption and terrorism, have become government officials, ministers and even presidents of the Peruvian State. It is also very difficult to think that the population of Islay will take the comments of a government that has repressed violently the protests, government which mismanagement of this conflict has caused deaths and injuries, and has even planted false evidence to innocent farmers for giving a negative image of protesters to the whole Peru through some corrupt press, with an open and credible way.

It is also very difficult to believe that the 138 observations related to the environmental impact received Southern Copper Corporation, part of the United Nations Office for Project Services (UNOPS) at 15 March 2011, have been raised in full some weeks before 1 August 2014 (date on which the Ministry of Energy and Mines approved the environmental impact study) by such mining group, when there is still obvious risks of damage to the environment and the health of population, and especially potential damage to agricultural and livestock activities in the short term, that gives economic support to the people of the province of Islay.

From a general point of view, we can summarize the problems associated to the social conflicts in Tia Maria as follows:

1. The Peruvian Government has sought to prioritize the rapid implementation of Tia Maria for not slowing the growth of the gross domestic product of Peru. Also, it is important to remark the lack of credibility of the Peruvian government, due to the absence of the presence of entities of the Peruvian State and the lack of acceptance of its responsibilities since the origins of the conflicts and until this moment, transferring the responsibilities of the next steps of the Tía María mining project to the Southern Copper Corporation.
2. The Peruvian Government has lost credibility with the population by the authoritarian acts of their negotiators, including some criminal and abusive actions of the National Police of Peru.
3. Part of the organizers of protests seeks to exacerbate to the population due to their own political purposes being forthcoming the Peruvian elections of the year 2016.

4. Southern Copper Corporation mining group has various penalties for noncompliance with environmental regulations, which does not allow to that group, to have credibility with the population about the proposed improvements for using seawater and for implementing the environmental protection's infrastructure.
5. Southern Copper Corporation mining group probably considers that the guarantees for mining investing are absent.
6. Islay population feels that the open pit mining of Southern Copper Corporation will affect their agricultural and livestock activities, and will cause water scarcity, to pollute the environment and to affect their health, and above all, that mining would not contribute to their development in the short, the medium or the long term.

A proposed solution framework for Tía María mining project and other similar conflicts

The solution to the problems of the Tía María mining project should be based on a diagnosis of the problem and the direction of actions to preserve the lives of individuals of the population, as was established in the Political Constitution of Peru, which in its first article established: "La defensa de la persona humana y el respeto de su dignidad son el fin supremo de la sociedad y del Estado" (The defense of the human person and the respect for his dignity are the supreme goal of the society and the State), for which the fundamental pillars are: environmental protection, health protection and economic sustainability for their development. Also, if none of the parts of the conflict believes to the other parts, what should we do? ... We must seek intermediaries with credibility and must propose concrete actions to preserve the life and the health of people and the environment, and actions for generating development in the short, medium and long term for the people of Islay. We suggest a set of actions for an Integral Sustainable Development Program of the Province of Islay:

1. Request for public apologies from the President of the Republic of Peru and the past President of the Congress of the Republic of Peru. The population is aware that in his election speech said that the President of the Republic of Peru must consult the people of Islay before approval of the Tía María mining project, and in the contrary case, presidential vacancy must be declared (Cuarto Poder, 2011). Also, the past President of the Congress of the Republic of Peru participated in the protests against the mining project in 2011, joint to the mayor of the Dean Valdivia district (Perú21, 2015b). It is clear that the President of the Republic of Peru and the past President of the Congress of the Republic of Peru have not fulfilled the promise of his campaign, so that should give clear explanations to the people of Islay and request the appropriate apologies. They must also request a public apology to the families of the dead people and the wounded people by the conflict.
2. To compensate economically to the families of the dead and wounded people that the conflict caused, including the people of the Arequipa Region and the personnel of the National Police of Peru, immediately. With these actions, the people would see that there is a willingness to change and redress in respect to the damage caused.
3. Immediate withdrawal of the National Police of Peru, from the conflict zone. Police should be only to ensure that no damages will be done to the population, to the property or

the Peruvian State, and to the property of Tía María mining project, directly guarding the facilities, but not repressing the protests.

4. The designation of the Management Team of the Integrated Sustainable Development Program of the Province of Islay with all the stakeholders, which would be formed as follows:
 - A. A government representative. It is suggested to the President of the Regional Government of Arequipa, due to she has been recently elected and has the acceptance of the population. If we firmly believe in regionalization, there is no need for the intervention of ministers of the Peruvian State to resolve social conflicts in the regions, especially if they don't know the reality of the conflict zone. In the case of the congressmen of Arequipa, it has spread in the press that have commercial interests with said mining group, which would generate mistrust of the population, so that should not be the national government representatives in the management team. The percentage of voting government representative in the meetings of that management team will be 20%.
 - B. A representative of the province of Islay. The natural thing is to be your provincial mayor. The percentage of voting representative of the province of Islay in the meeting of the management team will be 20%.
 - C. A representative of Southern Copper Corporation mining group. The percentage of voting representative of the mining group in the meetings of the management team will be 20%.
 - D. A neutral representative chosen by the three parties to the conflict, to be who directs the Sustainable Development Program of the Province of Islay. The percentage of this neutral voting representative in the meetings of the management team will be 40%.
5. To hire UNOPS for assessing the potential damage to the environment and health of people as well as the impact on farming activities again.
6. If the UNOPS find various observations whose presence could damage the environment, health of people or farming activities, again, must inform to the project team, whose representatives will delay the start of operations of the mining group at Tía María mining project until all observations are remedied.
7. Given the lack of credibility of that mining group, a compromise must be realized with the appropriate legal and financial mechanisms, with the reservation of money for actions of environmental protection, health protection of the population, and protection against potential problems for economic activities, mechanisms whose legal and financial documents should be transparent to the management of the program, to the UNOPS and to the Peruvian population. Also, a schedule of activities should be developed with the amount of money to be allocated for the implementation of protective actions and the amounts of money that will serve to development projects that will be part of the program.
8. Only when observations are remedied, the mining group would start the mining phase.
9. To establish a public surrender of accounts, monthly, by the side of the Management Team of the Integrated Sustainable Development Program of the Province of Islay.

10. When mining exploitation initiates, the Management Team of the Integrated Sustainable Development Program of the Province of Islay will implement a Project Management Office, which will draw up integral plans for sustainable development projects in the province of Islay, which form part of the program. It is suggested to follow the conceptual framework of the Project Management Body of Knowledge (PMBOK) from the Project Management Institute, which proposes the following subject areas:
- A. Integration project management. It includes the following processes: a) to develop the project charter, b) to develop the management plan of the project, c) to direct the execution of the project, d) to monitor the work of the project, e) an integrated control changes, and e) to close the phase or project.
 - B. Project scope management. It includes the following processes: a) scope management plan, b) gather requirements, c) to define the scope, d) to create the work breakdown structure, e) to validate the scope, and f) to control the scope.
 - C. Project time management. It includes the following processes: a) Schedule management plan, b) to define the activities, c) to sequence the activities, d) to estimate resources of activities, e) to estimate the duration of activities, f) to develop the schedule, and g) to control the schedule.
 - D. Project cost management. It includes the following processes: a) to plan the management of costs, b) to estimate the costs, c) to prepare the cost budget and d) to control costs.
 - E. Project quality management. It includes the following processes: a) to plan the quality management, b) to realize the quality assurance, and c) to control the quality.
 - F. Project human resources management. It includes the following processes: a) to plan the management of human resources, b) to contract the project team, c) to develop the project team, and d) to direct the project team.
 - G. Project communications management. It includes the following processes: a) to plan the management of the communications, b) to manage the project communications, and c) to control the communications.
 - H. Project risk management. It includes the following processes: a) to plan risk management, b) to identify risks, c) to analyze risks qualitatively, d) to analyze risks quantitatively, e) to plan risk response, and f) to control risks.
 - I. Project procurement management. It includes the following processes: a) to plan the procurement management plan, b) to execute the acquisitions, c) to control the acquisitions, and d) to close the acquisitions.
 - J. Project stakeholder management. It includes the following processes: a) to identify stakeholders, b) to plan the management of stakeholders, c) to manage the stakeholder participation, and d) to monitor the participation of stakeholders.
11. To supervise and monitor the proper implementation of projects of Integral Sustainable Development Program of Islay Province by the side of the Management Team, effectively.
12. To maintain regular recruitment of UNOPS for auditing the projects of Integral Sustainable Development Program of Islay Province. In addition, the corresponding audits of OEFA (Organization for the Environmental Control), the Ministry of Energy and Mines, and the General Comptroller of the Republic of Peru, must be realized.

The solution to this social conflict will be difficult if the parties do not change their attitude; however, we are still in time to prevent further damage to life and physical integrity of the

population and the policy, and the effect on their economic activities. We must stop the political egos for directing to Peru towards a country with inclusive political and economic institutions, in order to generate sustainable development of the nation. The proposed framework for the solution of conflicts of mining projects, is the following:

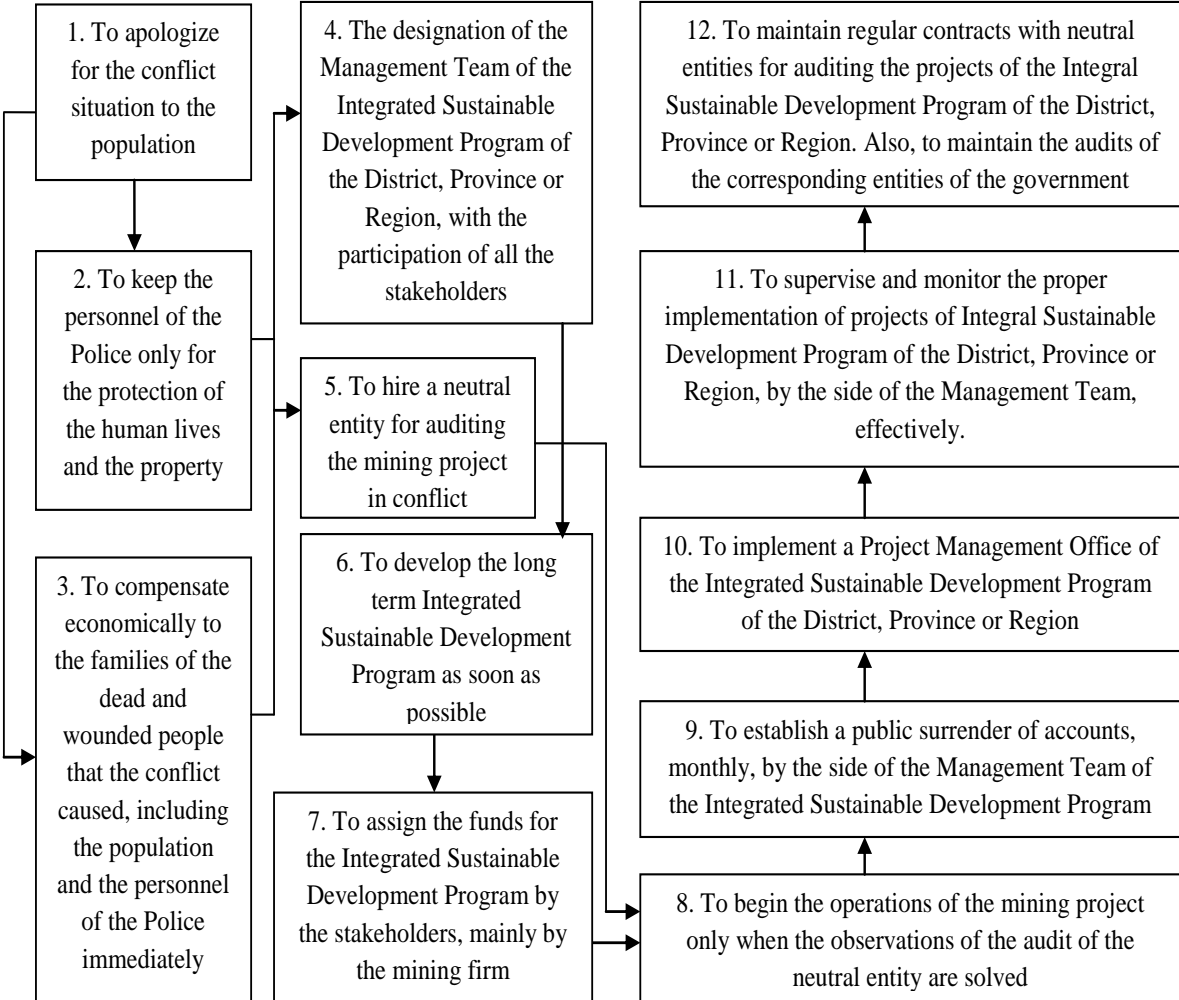


Figure 1: Proposed framework for solving conflicts of mining projects

Conclusions

The main conclusions of the study are the following:

- A. There is not an academic framework for solving the conflicts of mining projects in Peru. The proposed framework for solving conflicts of mining projects in Peru, could contribute to the beginning of the solution of this problem.
- B. The inadequate project management of the mining projects by the Peruvian government, caused the reduction of the economic growth of Peru, with the corresponding consequences for their development.
- C. The solution to the conflicts of mining projects must include: a) the alignments of the project management framework of the Project Management Institute, b) the implementation of an Integrated Sustainable Development Program of the District, Province or Region under conflicts, c) a public surrender of accounts, and d) the

continuous audit processes by internal institutions and by external, independent and international institutions.

Recommendations for future researches

The recommendations for future researches are the following:

- A. The evaluation of the economic and the social impacts of the cancelled mining projects in Peru and other countries.
- B. The study of the economic and the social impacts of the most representative mining projects which cause better benefits to the population of the countries in diverse regions of the world.
- C. The evaluation of the economic and the social impacts of the most representative mining projects which cause worst damages to the population of the countries in diverse regions of the world.
- D. The study of the theoretical framework for obtaining the sustainable development with the social responsibility of the successful mining projects in diverse regions of the world, especially in Latin America, for building a theoretical framework which permits to understand the main variables and indicators for the management of the mining projects by the sides of the governments, the mining firms and the populations, which contribute to the sustainable development of the populations.

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