

GLOBAL ECONOMIC GOVERNANCE INITIATIVE

Development Banks and Socio-Environmental Risk: In search of an improved prognosis for sensitive development projects



Daniel M. Schydlofsky is a visiting Professor at Boston University's Frederick S. Pardee School of Global Studies. Professor Schydlofsky was the Head of the Superintendencia de Banca, Seguros y AFPs of Peru, from 2011-2015.

DANIEL M. SCHYDLOFSKY

ABSTRACT

Development projects especially extractive, hydro, or forest clearing projects, may generate so much opposition from their neighbors as to make pursuing such projects infeasible. EJ Atlas, the most comprehensive compilation of such conflicts, list 2,592 instances of socio-environmental conflicts around the world.¹ It behooves Development Banks to be especially attentive to such citizen reaction given their societal mandate.

There are numerous topics about which disputes and conflict may arise. These include: (i) water rights and water usage; (ii) air pollution, especially resulting from dust arising in open pit mining; (iii) overburden and tailings usage and disposal; (iv) deforestation; (v) effect of up-valley irrigation projects on down valley agriculture; (vi) participation in economic benefits; (vii) sharing of the new tax revenue; (viii) re-establishment of status quo ante, especially regarding mine closure; (ix) citizen participation in decision making.

Externalities are of the essence. When problems occur in major extractive industries, the costs are not contained within the project or the operating company. Suppliers and clients, suppliers of suppliers and even the clients of the clients are affected. As are all levels of government. Conflict may spread from one industry to another, and between subsidiaries of the same multinational in different countries. Sufficient turbulence may affect a country's credit rating or international risk premium, with effects throughout the economy.

The challenge is to institutionalize a *modus operandi* for large projects that promotes respectful and beneficial relationships for all the stakeholders involved.

National Development Banks are exposed to socio-environmental risk in two major ways: (i) when operating as direct lenders, where they take on direct project risk, and, (ii) when acting as wholesale banks providing finance to other institutions, where they share in the risk of their borrowers' portfolios.

1. www.ejatl.org. Other sites with related information are <https://www.business-humanrights.org> and <https://www.ihrb.org>

Socio-environmental risk has traditionally been dealt with through provisioning. However, this approach is flawed, because it assumes that (i) the project risk unavoidable, yet many extractive industries have learned how to avoid, abate and contain such risks, and, (ii) the risk is easy to quantify, which ignores the existence of the externalities.

Adopting a proactive approach to reducing socio-environmental risk involves, in the first instance, applying Extended Due Diligence. The Development Bank must concern itself with the extent to which its clients have awareness of socio-environmental risk and have in place proper coping responses. Clients must be helped to understand that they are about to introduce substantial change into the routine of life in the environment into which they enter and that there is a maximum human pace at which this change can be absorbed, which may well be slower than the engineering schedule of the project. But violating the human pace may well be costly in engineering terms, for it may lead to a blockage of access!

The Development Bank may require its borrowers, as a loan condition, to develop the capability to cope with potential and actual conflict throughout projects' life cycles. Included will be items such as respectful and honest dialogue, clear lines of communication (spokespeople), established grievance and redress procedures, and adequate involvement of the top decision making levels.

Development Banks should join the major international project financing banks in adopting the Equator Principles. Thereby, they would announce to their clientele that they are henceforth taking a greater interest in the issues surrounding socio-environmental risk and their customers' capacities to respond to this challenge.

Dealing with socio-environmental risk in their wholesale lending business requires Development Banks to move further. Coping with the externalities impacting from this window involves: (i) containing the spread of potential conflict, the essence of abatement; (ii) designing and constructing an early warning system, for in order to contain and abate, it is necessary to know when and where to act; and, (iii) assessing the risk of partially or totally funded downstream portfolios, which involves mapping the real and financial links in these portfolios to determine the aggregate risk involved.

The main tools for abatement are recovery finance and insurance. The first of these distributes the recovery costs over time; the second distributes them over many individuals. They can readily be used together.

Promoting a national regime for management for socio-environmental risk, made compulsory by the Bank Regulator may significantly facilitate the Development Bank's task. It can provide a level playing field for all lenders, generate an integrated risk information system and provide the framework for a coordinated abatement system.

In conclusion:

- Socio-environmental conflicts generate costs, sometimes substantial ones. Accounting systems of projects do not usually provide an effective way to identify these costs when they occur. Even less for externalities. Only after the fact do they become evident.
- Properly managed conflicts offer models on how to do things better. Learning from these precedents promises substantial risk and cost reduction.
- Conflict can spread without geographic contiguity and even play hopscotch internationally.
- The effect of socio-environmental conflict does not stay contained within the enterprise of operation subject to conflict. Rather, supplier and client links spread the effect up and down the supply chain, involving non-related enterprises as well as funders. Externalities are of the essence.
- Development Banks can be affected two ways: directly, in the projects they fund or co-fund, and indirectly, through their wholesale windows, when they finance the portfolios of on-lenders.
- Development Banks can respond to the risks they run by: (a) becoming Equator Banks and thereby contribute to reduce the primary risk of projects developing difficulties, and, (b) acting to contain the externalities risk inherent in their wholesale banking operations.
- They can also promote national regimes of prevention and abatement of socio-environmental risk by advocating for regulatory action on the part of the Bank Regulator and being the lead implementer of such regulations.

1. The Problem

a) Nature of the Conflict and the Attendant risk

Large development projects funded by development banks, such as mines, hydroelectric power plants, and large land clearing projects for industrial agriculture frequently generate significant disruption for the original resident population. The consequence is often opposition to the project, which can easily mushroom into substantial citizen mobilization and even violence. Numerous examples exist where projects, especially extractive, hydro, or forest clearing projects, have generated so much opposition from their neighbors as to make pursuing such projects infeasible. EJ Atlas, the most comprehensive compilation of such conflicts, lists 2,592 instances of socio-environmental conflicts around the world²

It is obvious that when the neighbors block access to a mine, that body of ore becomes valueless for the time it is blocked, no matter how high grade the mineral may be. The same is true of a hydro project or a road: if neighbors prevent construction, the project becomes valueless. Therefore, the attitude and actions of neighbors of large projects are central to the risk that developing them entails and to the economic value of such projects.

Development Banks are charged with developing projects that will benefit significant segments of their country's population as well as generating macroeconomic benefits that will redound in economic improvements for their nation as a whole. Therefore, they have a substantial interest that projects that they are involved in do not generate significant opposition from a mobilized citizenry. Otherwise, the projects risk not generating the expected benefits, with losses being incurred instead.

Development Banks must also be responsive to opposition to their projects, whether or not they may seem to be justified. Such responsiveness behooves any government agency. Accordingly, Development Banks must make every effort to prevent and abate conflicts surrounding their projects, taking extra care to respond with respect to the opponents and attempt to convince them of the public good resulting, and/or to modify the project and the distribution of its benefits to correspond more closely to the demands of the citizenry.

b) Major topics of dispute

Unfortunately, when there is a major development project, there is no lack of topics over which there might be dispute. In some instances the dispute will arise when the project appears on the horizon and is only a prospect. In other cases, the conflict appears when the project is under way and it becomes more evident what its impact may be. It is also not uncommon for the prospect of a project to look attractive to the surrounding community, but when it becomes reality the negatives impact starkly. This is due in part because the dislocation caused by large projects occurs well before the benefits begin to be harvested.

Here are some typical topics of dispute:

I. WATER

Mining operations usually require large amounts of water. That raises the immediate fear that water will be diverted from agricultural uses.

Hydro projects can also be an issue. It is usually clear to the neighbors of a hydro dam that the water is not being "used up". However, it is being returned in a different location. Consequently, agriculture and towns located above the point of return of

² www.ejatlaser.org. Other sites with related information are <https://www.business-humanrights.org> and <https://www.ihrb.org>

the water may be or believe to be deprived of such water. Moreover, the water may be or be believed to be returned in less clean condition. In addition, the releases from a dam may not coincide with the agricultural cycles. Finally, hydro projects generate new lakes, and thus may flood previously existing agricultural land or towns, requiring relocation.

II. AIR POLLUTION

Open pit mining creates dust. The wind blows away the dust which then falls back to earth some distance from the mine. If there are pastures in the vicinity, it is most likely that the mineral bearing dust will settle on the pasture. Cows, sheep and goats grazing will ingest some dosage of heavy metals along with the grass. In turn, these heavy metals will find their way into milk. The milk will be drunk by babies and young children. The ultimate effect is developmental delays and intellectual disabilities in human children. Additional effects such as birth defects or greater proclivity to cancer may also appear. New power plants or industrial factories may have similar impacts.

III. OVERBURDEN AND TAILINGS

Overburden is the top rocks removed from open pit mines. Tailings are the leftover ground-up rocks produced by a mineral processing plant. Both take up considerable space. If not properly handled, there will be runoffs from the piles of rock during the rainy season, which will pollute streams and rivers, affecting fish and other wild life, as well as drinking water.

Old tailings may also constitute new sources of metals, as technology and better prices make it profitable to reprocess them. To all intents and purposes, then, they constitute new mines, and are highly likely to become new sources of pollution of air and water.

IV. DEFORESTATION

Opening additional areas for farming, especially industrial farming, often requires extensive deforestation. This may directly reduce living space and sources of firewood and food for the pre-existing population. Large numbers of existing residents may be forced to move elsewhere, without compensation. It may also create changes in the local climate and generate a greater propensity for flooding. Negative externalities on pre-existing agriculture may thus occur.

V. UP-VALLEY IRRIGATION PROJECTS

Irrigation projects that involve rerouting rivers to increase the agricultural water supply in specific areas may have unintended consequences. As agriculture expands up-valley, the net water flow in the river can become reduced. As a consequence, there can be saltwater intrusion where the valley reaches the ocean. This will make the water table saline and can affect wells and even, if the effect is strong enough, the deeper roots of plantings. Additionally, the return flows from irrigated lands may be highly polluted when discharged back into a river that downstream farmers use to water their crops. All of this, in turn, affects what can be grown in those older agriculture lands, and may even make them unfit for any agriculture. Not only will the net increase in agricultural land then have been substantially reduced, the irrigation project will have extinguished the value of a range of physical assets of the population. Those thus “expropriated” may be expected to be quite opposed to having such a project go forward.

VI. ECONOMIC BENEFITS

There are any number of stakeholders who feel entitled to participated in the economic surplus generated by a project over and above the material input costs (the value added). First in line is the tax man, who may get royalties regardless of the project’s profitability. Next in line come the legal rights of workers under many laws. Only thereafter, can the project developers collect a profit. Local communities usually feel entitled to some share of the benefits; they argue that it is being generated on “their” land, or in “their” community. However, how large a circumference from the project generates a direct entitlement to a share of the benefits can be subject to considerable dispute. In addition, there may be a desire or demand on the part of the community that the Project make some direct contribution in addition to their tax payment.

VII. SHARING OF THE NEW TAX REVENUE

Subnational governments usually have a claim to some part of the tax revenue generated in their jurisdictions. However, who is entitles and to what share, can be a matter of considerable dispute. In such situations, it is not impossible for neighbors to

hold a project hostage until the national government (or some level of government above the most local) agrees to cough up a higher share of the tax proceeds. The project then becomes a pawn in a political dispute.

Further complications connected to future potential tax revenues may arise when a national government's fiscal balance is precarious. Then, a prospective shortfall of revenue will have macroeconomic implications and the leverage of a local (and limited) claim to revenue will be enhanced. By the same token, the cost to the country of conflict will be higher and the national governments urgency to settle any potential conflict will be increased.

VIII. RE-ESTABLISHMENT OF STATUS QUO ANTE

In mining particularly, there is a recognized obligation to "close" the mine properly when the ore body has been exhausted and mining ceases. Closure requires the stabilization of tailing piles, restoration of water courses and other costly undertakings to make sure that the environment is protected once the mine is closed. The proposed manner in which such "closure" is to be guaranteed and funded may generate considerable friction. Community distrust of mining companies and authorities in this matter often has valid historical justification.

IX. DECISION MAKING AUTHORITY

National legislation may establish who has ownership and authority over the relevant rights. But the citizens may have different views on the matter and may consider that their traditional rights are being trampled on. The ILO's Convention 169 enshrines the rights of citizens to be heard, in some cases even to exert veto rights. But even aside of the formal legal situation, as a matter of practice, local groups have significant leverage on the outcome in any particular case. Where "voice" is not effective, violence will follow³.

There are thus more than enough topics around which disputes and conflict can occur. A part of them can be considered a clash between Modernity and Progress on the one hand vs Tradition and Safety on the other. But many of them have significant admixtures of many elements in them, even if the underlying motivation may be one of resistance to change.

There are additional sources of conflict that may appear in the execution of projects and that are usually not evident before a project starts. Among these is the difference in housing and income between project employees and local townspeople. A further irritant may be the social mores of the newcomers who may well import behavior from the cities into a more traditional countryside (partying, drinking, public displays of affection, etc.). These latter may well be interpreted as disrespect on the part of the newcomers with regard to the locals. Finally, the behavior of company police needs to be mentioned which can easily become a major source of friction.

c) Externalities are of the essence

When problems occur in major extractive industries, the costs are not contained within the project or the operating company. Rather, externalities abound. Suppliers and clients are affected. As are the suppliers of the suppliers and occasionally even the clients of the clients. But certainly local governments are affected, both in revenue and in expenditures. National tax revenues are also typically a casualty of a dispute and it may be that the national government is called upon to incur in additional expenditures.

A clear case for a national government cost externality occurs when a road blockage takes place, a common occurrence in such conflicts. First, additional police costs appear, to clear the roads. But if the conflict escalates, and there are deaths, the national costs may become quite large. In fact, under such circumstances, it is highly likely that the initial conflict may spread to other extractive projects or operations, even in non-contiguous localities. Conflict playing hopscotch as it spreads is a common occurrence.

3 Hirschman, Albert O, *Voice, Exit and Loyalty, Responses to Decline in Firms, Organizations, and States*, Cambridge: Harvard University Press, 1972

Indeed, there may well be macroeconomic costs. Consider the effect on a country's risk rating if it becomes beset with a sequence of conflicts in its extractive sector. But a slight downgrade in credit risk will have a major impact of a country's borrowing costs, both public and private. That may, in turn, drive an increase in the local interest rate and thereby further affect economic investment and activity, to the detriment of all.

The most pernicious consequence of such macro effects, especially when it operates through the country credit risk, is that it is not immediately obvious that the cause of a rise in the risk premium lies in the conflicts surrounding project implementation. Accordingly, there is less motivation for the policy makers to look for effective action to deal with the situation.

d) The Challenge is to do Better

There is little question that conflict in extractive industry exacts a range of costs affecting different parts of the economy. There is also ample evidence that such conflicts are not inevitable: some companies in extractive industries have succeeded at coexisting with their neighbors in considerable harmony for long periods of time. The same can be said of hydroelectric projects and others. Thus, the challenge is to institutionalize a modus operandi for large projects that promotes respectful and beneficial relationships for all the stakeholders involved.

2. Exposure of Development Banks to Socio-Environmental Risk

National Development Banks may operate as direct lenders and also as wholesale banks providing finance to other, presumably smaller, institutions. They may also participate in syndicated lending for projects, with domestic or with foreign banks. Finally, they may provide a variety of guarantees to reduce the risk in socially worthwhile projects for private lenders.

Depending on the modality of finance, Development Banks have different exposures to socio-environmental risk.

a) If direct Project Funding is involved, be it as sole funder or in association with other financiers, socio-environmental risk will directly impact the Development Bank's balance sheet. Here risk is the direct consequence of what happens to the project that is being financed.

b) If the Wholesale Banking function is involved, the Development Bank is exposed to the extent that its borrower's portfolio is exposed, depending, naturally, on the specific conditions of the respective portfolio pledge. However, what is important to recognize is that when a Development Bank in essence finances a portfolio, it can become impacted by the full range of negative externalities generated by a Project beset by Conflict.

It may be useful to provide an example. Suppose the National Development Bank of Latinia provides a line of credit to the Caja Rural of North Latinia Province, and this Caja Rural makes a loan to truckers who buy vehicles in order to service the gold mine which is supposed to start operations in the following year. If there were to be a road blockage preventing the trucks from operating and this caused a default in the loan servicing, the Caja Rural's portfolio would be affected, and, depending on the terms of its finance, the National Development Bank might wind up sharing in the exposure and the possible loss.

To the extent that a National Development Bank is an important wholesale lender to regional banks, specialized banks or finance companies that have "normal" portfolios, even consumer credit portfolios, the National Development Bank will be

exposed to whatever socio-environmental risk exists in the economy. This generalized risk will be additional to the specific risks it runs whenever it finances a particular development project.

3. Coping with Conflict in Projects

Project risk has called forth more than one response. The traditional one is still the most prevalent. However, an evolution among large project financing banks is clearly under way. Development Banks would be well advised to join the trend.

a) The traditional approach: provisioning

The traditional approach to coping with risk arising from socio-environmental conflict is to treat it like any other risk and to set aside a loss provision for it. However, there are several draw-backs to this approach:

- i. It is passive and implicitly assumes that nothing can be done to reduce the risk;
- ii. It assumes that there is an easy way to quantify the risk involved.

The first assumption is fundamentally flawed. The evidence indicates that there is much that can be done to reduce socio-environmental credit risk. Some of it can be implemented by the Development Bank itself, some of it requires action by the borrower, some of it requires implementation by others in the banking and finance community, and some of it may require action by the Regulator. Assuming that “what will be, will be” is neither risk minimizing nor profit maximizing. Even less is it socially beneficial.

The second assumption is not a good one either. The usual structure of the corporate accounting systems does not include a profit center for socio-environmental costs. As a result, when such costs are incurred, they are disseminated throughout the corporate system⁴: they appear as legal costs, as public relations costs, as human relations costs, as senior management costs, etc. Now, with the costs of conflict not properly summed up, the motivation to prevent and abate is weakened. Management cannot be held to account by their Board for something not appearing formally as an item on the P&L statement! By the same token, the Development Bank lending to the Project cannot be provided with data which the company itself does not have. So, costs of conflict will be routinely underestimated.

It could be, of course, that if the Development Bank’s borrower has sufficiently deep pockets so that the loan will nonetheless be good. However, that assumes that the Development Bank is lending to borrowers that have ready access to other lenders and/or the capital market. If that were so, the Development Bank is not fulfilling its mission, which is to finance projects that do not have easy access to commercial finance.

There is, however, a further problem with assuming that the socio-environmental risk can be easily quantified for provisioning purpose. This arises from the cost of the externalities that projects with problems create. Recall that one of the functions of Development Banks is to provide wholesale loans to other institutions for on-lending. Through this mechanism, the Development Bank acquires a stake in a broad portfolio of assets that can be affected by projects in difficulties. However, the identification of this source of risk is not current practice. Accordingly, borrowing institutions at the Development Bank’s wholesale window are unable to provide such information. By the same token, the Development Bank has no basis on which to make the appropriate provision.

4 Davis, Rachel Daniel Franks, Costs of Company-Community Conflict in the Extractive Sector, Harvard Kennedy School Corporate Social Responsibility Initiative, 2014.

It follows, then, that any provisions made for socio-environmental risk by a Development Bank are likely to (a) have little or no actuarial basis, and (b) be substantially underestimated.

Note, however, that the two draw-backs to proceeding blithely to provision against socio-environmental losses are cumulative. Hence, to provision on the presumption that this is enough is neither desirable nor sensible.

b) The pro-active approach: ensuring due diligence

Socio-environmental conflict around projects, even extractive ones, is not inevitable. There are a good many projects that have evolved mechanisms that provide win-win solutions to disputes with the neighbors, local government, environmental NGOs, the national government, and any other concerned stakeholders. Such projects constitute models of how to manage potential conflict and convert danger into opportunity⁵.

The question then becomes: what can a Development Bank do to ensure that the projects it invests in imitate the successful avoiders of socio-environmental conflict?

The answer lies in Extended Due Diligence. The Development Bank must concern itself with the extent to which its clients have awareness of socio-environmental risk and have in place proper coping responses. It becomes no longer sufficient to, for instance, examine the quality of the mineralogy of a mine to be financed, it becomes equally important to examine the sociology of where the mine is located.

Projects financed by Development Banks need to have managements with a mind-set understanding the broad nature of their insertion into the local society in which they will be operating. They must further have a willingness to engage in honest and open dialogue with their relevant neighbors, whoever they might be, and to treat them with respect. They must understand that they are about to introduce substantial change into the routine of life in the environment into which they enter and that there is a maximum human pace at which this change can be absorbed, which may well be slower than the engineering schedule of the project. But violating the human pace may well be costly in engineering terms, for it may lead to a blockage of access!

There are a number of other requirements and desiderata which make the difference between a project which operates smoothly with its neighbors and one which generates conflict. Perhaps the most important is for the project developer to carry out a wide-ranging assessment of the potential impacts that the project may have on the surrounding community and to devise ways to minimize that impact while at the same time working with the community to ensure that those impacts will not lead to conflict. This is the common thread that runs throughout the major international guidelines, mentioned below. If there are impacts that cannot be avoided or sufficiently mitigated, it is imperative that the developer make the community aware of these impacts and attempt to reach a point at which the community feels that it is being adequately protected and compensated. Once a project gets underway, an ongoing dialogue is important; centralizing communication with the community in a team of experts skilled in conflict resolution is another; delivering on promises made is a third. Further, when disputes arise, proper grievance procedures should be available. Building trust may be difficult, but it is inevitably rewarding. Trust built can very easily be lost: it requires continuous cultivation.

In sum, a Development Bank may require its borrower, as a loan condition, to develop the capability to cope with potential and actual conflict. This capability can serve the project throughout its life cycle—from inception to final closure. The skills

⁵ For a discussion of how different companies deal with socio-environmental risk, see Rees, Caroline, Deanna Kemp and Rachel Davis, *Conflict Management and Corporate Culture in Extractive Industries: A Study in Peru*, Harvard Kennedy School Corporate Social Responsibility Initiative, 2012, and Davis, Rachel Daniel Franks, *Op.Cit.*

that go into developing and managing the physical project (engineering, finance, etc.) are quite different from those that may be needed to deal with community relations, conflict avoidance and dispute resolution. Indeed, a project may wish to engage the services of outside experts to assist it in designing and implementing its conflict management system. A skilled team of community relations professionals that have the ear of senior management may contribute greatly to the likelihood that the project will listen to and taken into account, the voices of the surrounding community, thereby greatly lessening the potential for conflict to arise.

The large international Project Banks have recognized the need to implement Extended Due Diligence in their project departments, and have formalized this procedure as the Equator Principles. Development Banks would be well advised to subscribe to these Equator Principles and adopt them as standard procedure.

c) The Equator Principles and other international standards

The Equator Principles⁶ constitute a voluntary codification on the part of the large international banks financing projects to put in place agreed-upon procedures conducive to a reduction in conflicts around extractive and infrastructure projects. They adopt a major part of the IFC's Performance Standards on Environmental and Social Sustainability⁷ and thereby de facto extend the IFC's guidelines to commercially financed projects. They are also congruent with the OECD's Guidelines for Multinational Enterprises⁸ and the UN's Guiding Principles on Business and Human Rights⁹ Also relevant in this context are the ILO Convention 169 on Consultation with Native and Indigenous Peoples¹⁰ and the Voluntary Principles on Security and Human Rights¹¹.

By becoming Equator Principle banks, the Development Banks would announce to their clientele that they are henceforth taking a greater interest in the issues surrounding socio-environmental risks and make it natural for them to enquire about the practices of their customers that will affect the probability of conflicts.

Development Banks pursuing such a course of action will be incurring the cost of developing new analytical and management capabilities. However, all the evidence available suggests that this cost is minimal compared to the benefits from avoiding or abating socio-environmental conflict.

4. Coping with the Externalities

Becoming Equator Banks will allow Development Banks to come into the mainstream where dealing with potential socio-environmental conflict in their directly financed projects is concerned. But it does not deal with the exposure of such banks to conflict on their Wholesale Window lending, another major part of their operations. Accordingly, becoming an Equator Bank will be only part of the task for a Development Bank.

6 See <http://equator-principles.com> and http://equator-principles.com/wp-content/uploads/2017/03/equator_principles_III.pdf

7 https://www.ifc.org/wps/wcm/connect/c8f524004a73daeca09afdf998895a12/IFC_Performance_Standards.pdf?MOD=AJPERES

8 <https://www.oecd.org/daf/inv/mne/48004323.pdf>

9 https://www.ohchr.org/Documents/Publications/GuidingPrinciplesBusinessHR_EN.pdf

10 https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C169

11 <http://www.voluntaryprinciples.org/>

a) The Essence of Abatement: containing the spread

The negative external effects from a conflicted project range far and wide: it is a case of the proverbial dominoes falling. Immediate suppliers are affected first, but the suppliers of suppliers are not far behind. Since the economic system is interdependent, the fall-out is wide.

Contagion can also play a role. A conflict in one location or sector may well spread elsewhere through imitation or links of various sorts of kinship, from literal family relationships, through militancy in the same political or other organization, through sheer emotional affinity or choice of opportunity. What prompts contagion is not well known, but that it exists and may be powerful is an empirical fact.

Contagion may also occur internationally. A conflict affecting an operation of a multinational enterprise in one country may prompt activists at another subsidiary of the same company in another country to undertake imitative action. Lawsuits brought in the locations of companies' headquarters, pursuant to conflicts in countries where subsidiaries are located have also become relevant of late.

Containing the spread of the effects of conflict is then the essence of abatement. The more quickly and effectively it is possible to contain the economic and financial damage, the less harm will be caused, and, by the same token, the more quickly can recovery from the incident occur.

b) Designing and constructing an early warning system

In order to contain and abate, it is necessary to know when and where to act. This requires information on the gathering storms.

Fortunately, conflicts have a way of building up gradually before they explode. Therefore, if there is an awareness of danger, it is possible to detect the rumbles that might signify trouble brewing. But unlike the weather forecasting of storms, which has become very sophisticated, forecasting socio-environmental storms is still in its infancy. Still, local news outlets typically report on citizen dissatisfaction; local merchants, who are clients of banks, have an "ear to the street" and could pass along the information; aspiring politicians make public speeches announcing their hostile intentions; etc. There is much information there; what is lacking is a mechanism to collect it, collate it, sieve it, and determine its implication in terms of socio-environmental risk.

The Development Bank can request/require its wholesale window customers to be cognizant of the information on socio-environmental conflict that its loan officers come across in the natural course of their work. Such information could then be translated first into a risk assessment for the Bank customer itself, and then consolidated into a portfolio risk at the Development Bank.

Government may have a role here too. The Ministries of Environment, Mining, Infrastructure and Interior are all likely to have information on conflicts, past present and future. As do Government Human Rights Ombudsmen. This information is typically not collated in a single place for easy access. It is also not usually shared with the Bank Regulator. Yet it such data can be of great use in anticipating problems and thereby reducing the risks of socio-environmental conflict.

Ideally, government and private data should be merged in a single data base consolidating all information available on potential conflict. The Development Bank's role can range from being a catalyst for the generation of the data base, through funding its construction, through administering it.

Once recognition exists that the wholesale window exposes the Development Bank to a risk arising from the portfolios of its wholesale window borrowers, and data are collected regarding the socio-environmental conflict risks that exist in the economy, then it becomes desirable to identify these risks in a quantitatively.

I. MAPPING REAL AND FINANCIAL LINKAGES

If we think of an economy as an inter-related system of production, perhaps reflected in an Input-Output Table of the Leontief¹² kind, we will find two types of relationships:

- a. Flows of real goods and services – where one firm sells something to another, and
- b. Flows of finance – where one firm extends trade credit to another.

Both relationships are capable of transmitting harm. If a purchaser ceases to purchase, because he is no longer able to sell to his buyer, then the seller will find his market reduced and will, in turn, also buy less. Along the way, if inventory decumulations occur, the impact may even be amplified. Similarly, if trade credit is reduced, and/or outstanding credits called in, then the resultant cash squeeze will affect purchases and the capacity to maintain inventories. Businessmen call this phenomenon a breakdown in the payments' chain.

Now, consider what happens when a conflict prone project runs into stormy weather and abruptly ceases or substantially reduces its purchasing. It might be subject to a blockage of roads, or, worse yet, confront enough local opposition to be postponed or cancelled. Its suppliers then spread the effect all the way back down the supply chain. And, since all the links in the chain typically use working capital finance, the ability to repay loans will be compromised all the way down the chain too.

A Retail Bank which has extended credit to such supply chains, will find its portfolio suddenly deteriorated. Depending on how bad that deterioration is, its own capacity to repay may be affected. But in any case, there is here a clear case of heightened portfolio risk for the Development Bank.

A consumer lending bank is also unlikely to be exempt from this risk. Consumers are income earners, or they would have no way to pay for their consumption. But as income earners, they are exposed directly and indirectly to the market for their services, and, hence, to a potential local macroeconomic reduction in demand if a major investment project runs into socio-environmental objections and is forced to reduce activity, or shut down temporarily or permanently. It follows that consumer banks financed from the wholesale window of the Development Bank also signify portfolio risk for the lender.

There is no escape from the interdependence of the economy. A Development Bank is by its nature large enough and sufficiently intertwined with its national economy to require some foresight of the indirect socio-environmental credit risk it runs.

The technique for empirically assessing portfolio risk is a modified Input-Output Analysis, with suitable inclusion of financing coefficients, trade credit and the capacity of conglomerates to internally shift funding between sectors.

12 Wassily Leontief, *Input-Output Economics*, 2nd edition, Oxford University Press, 1986: New York & Oxford

II. AGGREGATING THE PORTFOLIO RISK

A first step is to determine what socio-environmental risk is inherent in the portfolio of each wholesale customer. In principle, this calculation will be no different than any calculation of the risk of a particular portfolio. It will, therefore, be the weighted sum of the socio-environmental risk of each of the loans in that wholesale customer's portfolio, taking further account of the covariances that may exist between loans in that portfolio.

The next step is then to aggregate to portfolios of the various wholesale customers of the wholesale window. This will be somewhat more complicated since there is presumably overlap between the portfolios of these various customers and therefore the covariances will be important. An information challenge may result, which may require using simplifying assumptions.

Once the aggregated wholesale window risk is determined it can then serve as a basis for decision making on the level of provisioning required as well as on the effort and resources that is justified to invest in prevention and abatement.

c) Techniques for Abatement:

I. RECOVERY REFINANCE

When a financial problem occurs, the most immediate need is time: time to assess the damage, time to evolve a strategy for response, and then time to implement that strategy. The next need is for finance to bridge the time it takes for the chosen strategy to become effective.

Hence, the most important tool for abatement of negative externalities from socio-environmental crises is recovery finance.

Such finance needs to have certain characteristics:

- (a) It needs to be system-wide;
- (b) It needs to be as non-discretionary as possible. Here there is an uneasy compromise between rescuing all the worthy cases and yet avoiding the rescue of debtors that would have collapsed even in the absence of the socio-environmental crisis.
- (c) It needs to be available to new bank customers who would not have looked for credit in the absence of the socio-environmental crisis;
- (d) It needs to have a declared starting date and a declared ending date;
- (e) It needs to have interest and due date terms that are not unduly onerous and can be realistically met by most affected enterprises.

Given its characteristics, Recovery Refinance is best instituted by regulation, although it is possible to implement a significant part of it by initiative of the Development Bank itself.

II. INSURANCE

Recovery Refinance spreads the recovery over time but keeps it within each economic unit. Insurance, on the other hand, spreads the recovery cost over many economic units but keeps it within a single period in time.

The essence of insurance is that many pay a small part of the cost of restoration for a few. Combined with randomness in who these few are, it is rational for all to shoulder the collective burden.

A critical issue, however, is how large the pool is over which the burden will be spread. The larger the pool, the lesser the burden for each participant. Therefore, any socio-environmental risk insurance is preferably national in coverage. Even more, it is desirable that international reinsurance be procured for it.

There is, in addition, another strong reason for international reinsurance: the low correlation that incidents of socio-environmental conflict in a particular country will have with other coverages in the international reinsurance pool.

The application of Recovery Refinance and Insurance need not be mutually exclusive; rather they can be combined to lighten the load on each of these remedies.

Finally, it is important to mention the role that taxation plays in remediation. To the extent that individuals and businesses are subject to taxation, any reduction in their income will reduce their tax burden. If the tax is progressive, moreover, that relief will be more than proportional. However, in many empirically relevant situations, a large proportion of those affected pay no taxes de jure or de facto. Accordingly, there is also no tax relief. Finally, it should be noted that taxes not paid are rarely perceived as something off-setting losses occurring as a result of socio-environmental conflict. Hence, non-payment of taxes are not a valid policy substitute for the other more explicit policies.

5. Promoting a National Regime of Management for Socio-Environmental Risk

Development Banks, being part of a country's government, have a policy advocacy role and can easily get a hearing with the Bank Regulator¹³. Accordingly, they should carefully consider advocating the enactment of Regulations making some version of the Equator Principles mandatory and also instituting abatement mechanisms by regulation.

The Regulator's primary responsibility is to keep the banking system safe. One dimension of safety is risk reduction. In turn, socio-environmental conflict is a banking risk which will loom large in certain jurisdictions and at certain times. When such circumstances might occur is not easy to predict while systemic precautionary measures are substantially less costly than the economic and social harm that even one major socio-environmental conflict can cause.

It is appropriate, therefore, for the Bank Regulator to promulgate a system whereby development banks and other financial institutions are required to take proper steps to ensure that their borrowers conduct the proper Extended Due Diligence discussed above and take appropriate steps to mitigate any adverse socio-environmental impacts¹⁴. The Regulator will also have a vested interest in the creation of a consolidated data base of past, present and possible future conflict, covering information available in the public and private sectors. Indeed, it will have a substantial interest in enhancing any forecasting capability in the public and private sectors related to socio-environmental conflict. Finally, it will certainly have an interest in creating safety net abatement mechanisms.

As noted before, Development Banks have considerable capacity to institute many of these measures on their own initiative. However, the reach of Development Banks within their own financial system is usually limited. Collaboration with the Regulator, and becoming the lead institution implementing new Regulations to prevent, contain and abate socio-environmental conflict will not only provide the Development Bank with an additional and very important role, but also fulfill its mandate of contributing to a better functioning economy and one more completely serving the public good.

¹³ Multilateral Development Banks may also have a role to play in this aspect.

¹⁴ See Schydowsky, D. M. and Robert C. Thompson, "Reducing the Financial Risk of Social Conflict", *Americas Quarterly*, Spring 2014, pp. 83-86, reprinted in Spanish Translation in *Banca & Desarrollo*, Jan-Mar, 2017

a) The Advantages of Compulsory Regulation

I. LEVEL PLAYING FIELD

Relaxed implementation of the Equator Principles should not become an instrument of competitive advantage within the financial system. However, the avoidance of “free riders” requires making such Principles mandatory. In addition, tracking of similar behavior (or lack of it) in the financial market should be a complement.

II. INTEGRATED INFORMATION SYSTEM

Systems-wide tracking of socio-environmental risk, by government entities as well as within the financial system, will allow suitable measures to be taken on a timely basis. However, some of this information is proprietary, thus its collection needs to be a task of the Regulator, to simultaneously preserve confidentiality and benefit the system from all the information available.

III. COORDINATED ABATEMENT SYSTEM

While Development Banks can apply some abatement techniques themselves, the effectiveness of such techniques is substantially increased if applied across the whole financial sector. That is only possible by regulation.

b) Getting there

I. BOTTOM UP

The initiative in promoting a Regulatory Framework for socio-environmental risk can be taken by a Development Bank, or, by a Banking Association, or by any collection of members of the financial system. Under this modality, the Regulator is presented with a proposed Regulatory Framework by the Development Bank and/or the Industry, takes it under advisement, and eventually adopts the version it considers most advisable¹⁵.

II. TOP DOWN

Under this alternative, the initiative lies with the Regulator who puts out a proposed Regulatory Framework for comments by the Development Bank and the Industry. After comments have been duly received and discussed with all the stakeholders concerned, the Regulator adopts a modified version of the original proposal¹⁶.

III. COMBINATION

There is no reason to suppose that there may not be concurrent initiatives originating at about the same time. The proximate cause may be a conflict incident that makes it clear to all concerned that action now needs to be taken.

¹⁵ An initiative of this sort is currently led by AHIBA, the Association of Banks of Honduras.

¹⁶ This has been the case of the Peruvian regulations. See Superintendencia de Banca, Seguros y AFPs, Peru, Resolución SBS No. 1928-2015

6. Conclusion

- Socio-environmental conflicts generate costs. These can become substantial if not tended to in time. Unfortunately, the accounting systems of the project developers are not organized in a way that allows an easy identification of conflict costs when they occur. Even less explicit tracking of the externality costs is available. Thus, it is only when conflicts become very major, and, perhaps some deaths have occurred that the costs command attention.
- The risks of conflict are always present for conflict between humans is built into human nature. But some conflicts are properly “managed” and resolved to the parties’ satisfaction whereas others are not. Properly managed conflicts offer models on how to do things better. Learning from these precedents promises substantial risk and cost reduction.
- The epidemiology of contagion of socio-environmental conflict is not yet well known. Conflict can spread without geographic contiguity and even play hopscotch internationally, when, for instance, conflicts in a company’s operations in one country spread to another.
- The effect of socio-environmental conflict does not stay contained within the enterprise of operation subject to conflict. Rather, supplier and client links spread the effect up and down the supply chain, involving non-related enterprises as well as funders. Externalities are of the essence.
- Development Banks can be affected two ways: directly, in the projects they fund or co-fund, and indirectly, through their wholesale windows, when they finance the portfolios of on-lenders. Development Banks therefore are extensively exposed to socio-environmental conflict risk.
- Development Banks can respond to the risks they run along two dimensions: (a) by becoming Equator Banks and thereby contribute to reduce the primary risk of projects developing difficulties, and, (b) by acting to contain the externalities risk inherent in their wholesale banking operations.
- They can also have an important role in promoting national regimes of prevention and abatement of socio-environmental risk by advocating for regulatory action on the part of the Bank Regulator and being the lead implementer of such regulations.



GLOBAL ECONOMIC GOVERNANCE INITIATIVE

The Global Economic Governance Initiative (GEGI) is a research initiative at Boston University's Global Development Policy Center. The GDP Center is a University wide center in partnership with the Frederick S. Pardee School for Global Studies. The Center's mission is to advance policy-oriented research for financial stability, human wellbeing, and environmental sustainability.

www.bu.edu/gdp

The views expressed in this Working Paper are strictly those of the author(s) and do not represent the position of Boston University, or the Global Development Policy Center.