MAPCID:
A Model for the Analysis of Potential Conflict in Development

Gwendolyn Smith
Nova Southeastern University

Gina Marie Michaud
Nova Southeastern University

Susana Bertuna Reynoso
Nova Southeastern University

Pamela Kay Struss
Nova Southeastern University/George Mason University

Abstract

Local communities often enter into conflict with the organization responsible for implementing a development project. These conflicts are caused by differences in interests, values, and expectations, and have a negative impact on the continuation and results of development initiatives. Although there has been significant improvement in the nexus of conflict resolution and development, there is still a need for site-specific analytical tools that are able to capture the diversity, complexity, and dynamism of communities. This paper presents the Model for the Analysis of Potential Conflict in Development (MAPCID) which allows practitioners to analyze conflict as an intrinsic part of local development. It transcends a static view of conflict by capturing the dynamics between organizations and local communities during a development project. By following this model, the practitioner analyzes seven levels of conflict drivers, stimulates the continuous alignment of power, culture, and goals, and enables timely participation of both parties in the development process. The promising use of MAPCID is demonstrated through the examination of a conflict between large-scale and small-scale gold miners in Suriname.

Introduction: The Nexus between Conflict and Development

Scholars in the conflict resolution field are increasingly studying conflict in development projects. Generally, development is considered to be longer term assistance that builds or develops a local community's economy and infrastructure. However, it is common for donors and development organizations to influence the types of programs which frequently lead to conflicts with the community. In many of these cases the community was not part of the program's selection or decision process (Zelizer, 2013). Practitioners are motivated to find new ways of effectively managing development interventions while minimizing conflict with local communities. There is some improvement in how conflict practitioners approach these

challenges, but there remains a great need for effective conflict analysis tools that may be used at each step of development projects.

Over the last two decades, the development paradigm changed from top-down assistance provided by development organizations to local communities, to more collaborative processes between these parties (O'Brien, 2007). Scholars are now realizing there are differences in power, interests, values, decision-making ability, and expectations of outcomes between communities and development organizations (Barron, Diprose, & Woolcock, 2007; Oishi, 1995). This disparity led to the gradual marginalization or social exclusion of local poor people.

With this paradigm shift, models for analyzing conflict in development projects are introducing additional measures of participation from the local level. One approach from the organization called Responding to Conflict applies a large set of conflict assessment tools to gain a holistic picture of conflict at the local level. The Canadian International Development Agency has a different approach; they use a set of guiding questions which requires the community to actively participate in gathering indicators on conflict and setting strategic goals for peace building (Kiplagat et al., 2004). Both tools focus primarily on conflict interventions to address the needs of the organization. Communities are then encouraged to analyze the incongruity between existing community structures and the project rather than approaching conflict as a localized, integrated, and dynamic process (Mac Ginty & Williams, 2009; Sharoni, 1996; Uvin, 2002).

Conflict scholars Johan Galtung (1996) and John Paul Lederach (2003) address the structural differences in reality between local and global parties. These practitioners see conflict mitigated by transforming the power balance and creating a long-term relationship between the parties. This conflict transformation framework "tends to provide few practice guidelines for practitioners and does not tend to offer a structure for deciding what theories, intervention processes, practice models or techniques to employ in particular conflicts" (Hansen, 2013, p. 16). Practice models are needed for a better understanding and handling of reality differences to narrow this gap in the conflict resolution field.

In this article we explore conflict as inherent to development. In using the term *conflict*, we mean the incompatibility between local and global parties in the process of defining long-term interests and goals in development. We present the Model for the Analysis of Potential Conflict in Development (MAPCID) for two reasons: (1) to systematically analyze and guide the process of integrating the community in the development process; and (2) to prevent intractable conflict by providing a set of tools to identify and transform conflict before and during the development intervention.

The Model for the Analysis of Potential Conflict in Development (MAPCID)

The point of departure for MAPCID analysis is that it examines the interaction of a donor, a community, and a development organization operating in a system. Having a systems approach enables the study of the conflict as a whole, while at the same time it also allows for the investigation of details with regard to the interaction between parties. Such an approach gives a richer understanding of the causes of intractable conflict and the possible interventions a practitioner can take (Li, Zhu, & Gerard, 2012).

In the MAPCID system, the donor, as the provider of aid, is driven to facilitate social change at the community level. The community, the recipient of aid, consists of members bound together by history and place who continually negotiate differences in their aspirations and goals

by interacting with the other parties in the system. The development organization, the third element, feels mandated to execute activities for the wellbeing of the community. Such organizations may be private companies, non-governmental organizations (NGOs), or government agencies (GOs).

Each of the three parties in the system has a different interest in the development project. Donor, development organization, and community undergo alignment and realignment of their interests through each phase of the development process. Alignment of interests are often accompanied by conflict, may be incidental, or can become intractable. Incidental conflict is considered healthy and fosters relationships between the parties (Fiki & Lee, 2004). We assume the community has sufficient assets to manage this type conflict by themselves, based on their social capital (organizations, networks) and human capital (leadership, identity). Yet long term, intractable conflict requires outside intervention; without such intervention the development activity could be constrained (Brennan & Israel, 2008).

MAPCID is specifically developed for analyzing (potential) intractable conflict in each phase of the development process. We assume a large power difference between the community and the development organization, and this unevenness in power typically results from differences in values, knowledge and financial resources. Situations with large power differences exist predominantly in developing countries where local communities live in poverty and are struggling to get their basic needs met. A conflict practitioner can holistically analyze the context of the development project and recommend interventions to transform the conflict. Then, the poor community can become empowered by participating in the project.

In the beginning of the development project, each party establishes an individual goal (Figure 1). For example, in a mining area in Suriname, hundreds of small-scale mining entrepreneurs and one multinational are engaged in gold mining. Both parties have an individual goal of earning money from extracting gold; yet, only the multinational has been granted concession rights by the government for mining. The multinational financially and logistically assists the community members in executing development activities and at the same time allows the small-scale miners to mine on the concession. Thus, the multinational is the development organization also abbreviated here as DO. The DO's actions are steered by their headquarters, which in this case acts as the donor.

MAPCID is designed for programming that is based on the local context and needs. We assume the local community has enough agency and interaction with the DO to generate options of development, and they are able to adjust these when necessary (Jones, 1998). The local community can thus create an individual goal and engage in integrative negotiation with the DO to convert this into a shared goal. The community and DO each undergo transformation; both want to improve their future situation and reach their full potential with the development intervention.

To illustrate a shared goal we turn to the Suriname small-scale gold miners and DO who work together in using safe mining practices. Typically, small-scale miners use poisonous mercury to separate gold from the soil because safer techniques are too expensive for their tiny operations. The DO is concerned about small-scale miners using environmentally unsafe mining techniques, and initiated a project to collaborate with the miners over using safe mining techniques on the land. Through this effort they exchanged knowledge, tested values, and challenged strategies to learn about each other's reality. In the end, the community, as the lower power party, became empowered as seen in Figure 1.
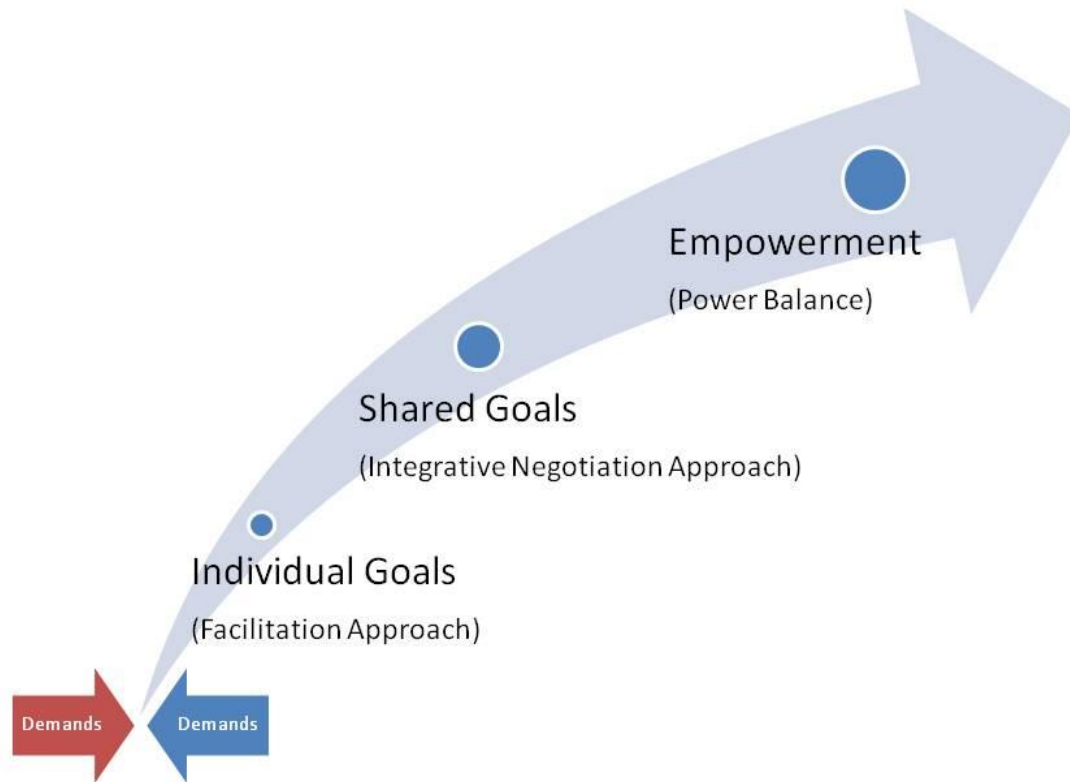
Figure 1: The Path towards a Power Balance between Community and Development Organization

Analysis of the Levels of MAPCID

MAPCID is a systematic process of analysis which progresses through seven conflict assessment levels (Figure 2). By following the seven levels, the amalgamation of donor, DO, and community takes place in a timely manner allowing conflict to be analyzed and consequently transformed. Based on the analysis outcome of each level, a conflict practitioner can make a decision whether or not to move the development initiative forward.

The analysis starts at the first level by reviewing the support structure which facilitates the interaction between the DO and community. The support structure is a precondition for all parties to participate in the development initiative. The first level is achieved when effective communication occurs, there is a level of awareness for social change and a system for social learning and cooperation between parties is in place.

In the second level we evaluate the community's access to basic human needs to survive such as food, shelter, clothing, water, air and security. After these basic needs are met, the community does not have to worry about survival and can start thinking about development. The third level analysis is accomplished once the community is self-maintaining and employs cultural norms for participating in the project. After reaching this level, the community is socially and economically prepared for entering into development.

In levels four, five, and six we analyze how the development project is introduced by the DO and gradually integrated within the community. In the fourth level, the DO steadily builds the project on the community's existing structure and systems. This level is completed once a suitable match is made between the community and the project. Level five analyzes the community's potential for developing innovative ideas and integrating them into the project. Then, the community takes full ownership and works side-by-side with the DO to craft a path towards reaching the shared goal. In level six, we analyze how the DO follows up and provides feedback on the activities planned by the community. Once the DO has a system for providing this type of support, the community can effectively progress towards reaching the shared goal. In level seven, the integration of community and DO is complete; the community has reached their goal and becomes empowered.

The entire system of community/DO/donor is often interrupted by outside forces. The system interacts with an outside environment, more specifically with the policy and institutional context. Institutions implementing national policies make available human, financial and legal resources that are felt at the local level. These measures can either stimulate or hinder the development path of the community, for example, the lack of vocational schools can prohibit building capacity necessary for supporting local development initiatives.
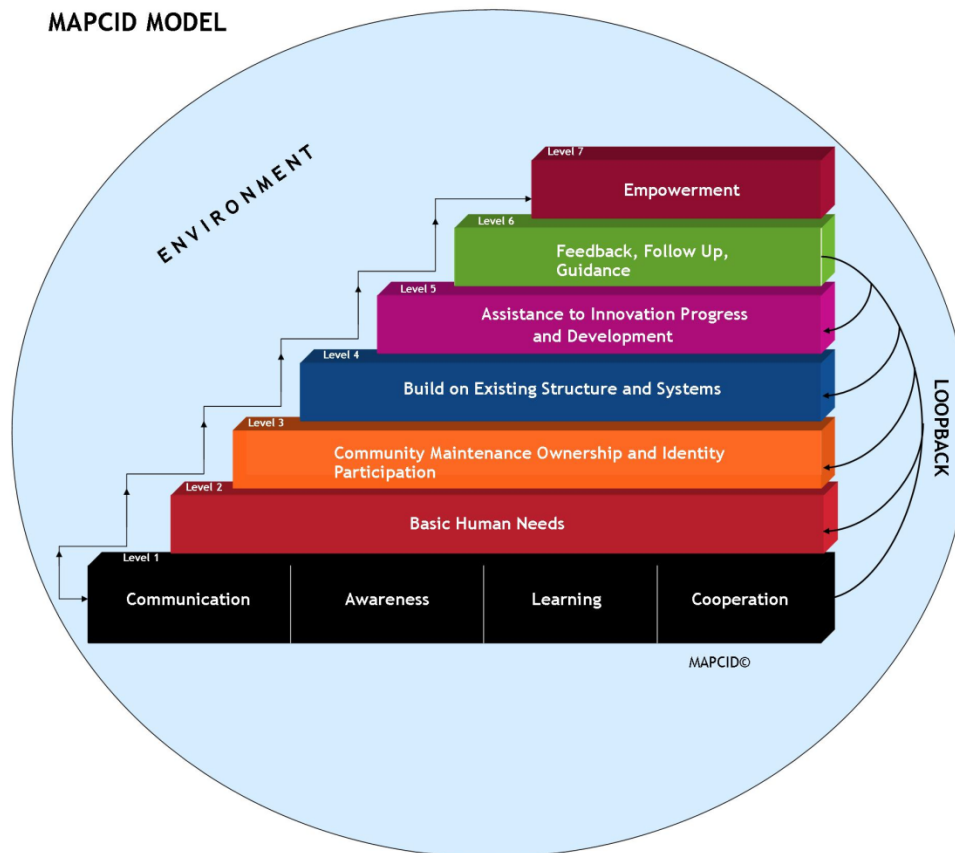

Figure 2: Model for Analysis of Potential Conflict in Development MAPCID

Using the Model
Case Study: Small-Scale and Large-Scale Gold Miners in Suriname

The use of this model is demonstrated by a case study of a conflict between large-scale and small-scale miners near the village of *New Koffiekamp* in Suriname, South America. The analysis starts with gaining some understanding about the system and its components namely, the community, donor, and DO. Then, the system is placed in a specific conflict assessment level after which the analysis can start. The analysis is carried out by answering guiding questions for each level and collecting this information into the MAPCID matrix. The matrix gives an overview of potential problems in the interaction between parties for each level. It serves as a basic template for the practitioner to design interventions for managing (potential) conflict.

Positioning the System

The MAPCID analysis falls within a paradigm of critical theory. Research within this paradigm uncovers (hidden) power relationships and focuses on promoting the knowledge and values of the lower power party (Willis, 2007). The MAPCID analysis uses qualitative methodology to provide a contextual understanding of the conflict including the environment in which the conflict takes place, relevant history of the parties, importance of the conflicted issue, evolvement of the conflict, type of development project, and the views of parties on the development project.

For data collection, we visited the *Nieuw Koffiekamp* site occupied with large-scale and small-scale mining operations in June 2011 and January 2014. We purposely used multiple sources of evidence for conducting the analysis in order to triangulate the data and construct a valid analysis. Data collection was conducted in three ways: (1) non-structured interviews, (2) direct observations, and (3) document review.

Non-structured Interviews

Non-structured interviews with local small-scale miners and the women living in the mining area or in nearby towns were conducted to get their perception of the conflict. Among the people interviewed were men working in small-scale mining (15), young women living close to the mine (2), women running the cantina in the small scale mining camp (2), representatives from a local small-scale mining association (2), men from the *Nieuw Koffiekamp* village located near the mine (4) and one older woman who was a village matriarch. Interviews with the large scale mining company included experts on environmental issues (1) and community relations (3). Interviews with two scientists (mining engineer, anthropologist) provided information on the physical and socio-economic conditions of the area. Interviews were conducted in the local languages with translation by experts with more than ten years of experience working in community development in Suriname (including lead author). Additional information about environmental policy and regulations was gathered through numerous interactions with experts from the National Institute for Environment and Development (3) and the Office of the Ordering of the Goldmining Sector (2) residing under the Cabinet of the President in Suriname.

Direct Observations

Direct observations on the site including the actual mining operation, housing, stores, recreational activities, and transportation equipment were witnessed. These observations were made by a conflict researcher familiar with the site and context of the conflict. Additional information was gathered by conflict researchers who had a novel interpretation of the conflict since it was their first visit to the site. These two groups analyzed data daily through a reflective process and wrote their findings in a journal.

Document Review

The document review included both academic and non-academic literature. We studied journal articles and research reports to get some insight in the history, policy context, and characteristics of the community and DO. Journal articles were selected focusing on socio-economic conditions and decisions (De Theije & Heemskerk, 2009; Heemskerk, 2002), risk perception (Heemskerk, 2001; Peplow & Augustine, 2007) and the role of women in small-scale mining (Heemskerk, 2003). Research reports emphasized the mining context (Algemeen Bureau voor de Statistiek in Suriname & Conservation International, 2010; Buursink, 2005; Cambior, 2002; Healy & Heemskerk, 2005; Plantprop, 2003; World Wildlife Fund Guianas & Ministry of Natural Resources Suriname, 2011), conflict (CEDLA, 2013; Smith, 2012) and land rights (Del Prado, 2006; Inter American Development Bank, 2011; MacKay, 2002) Additionally, we researched local newspaper archives (Redjokromo, 2005; Poetisi, 2008; De Ware Tijd, 2013a; De Ware Tijd, 2013b) to acquire information about repeated escalation of the conflict.

Using the collected data, we constructed a narrative on the background information. The narrative included relevant information from various sources needed to analyze the nature of the interaction between parties (Table 1). Once the narrative analysis was completed, then each party was positioned at a specific conflict assessment level in the model. Returning to the Suriname example, the DO is interested in making profits on their investment and increasing their stock value while looking for win-win ways to assist the community in upgrading their mining techniques. Consequently, the DO is located on level five: Analysis of the potential for Innovation. At this level, the DO considers the community a stable and self-motivated entity able to expand with technological innovation (Sutz & Arocena, 2006).

On the other hand, the community believes they are owners of the land but have been suppressed by the central government for more than 150 years both during and after colonialism. The community feels entitled to retrieve gold for their own livelihood and development. Thus, the community fights for their basic needs and is not willing to lose. The community is located on level two: Basic human needs analysis.

MAPCID considers both the progress of the community and the DO. To overcome the power difference, the total system is placed on the level that coincides with the party with the lowest power: in the Suriname example, the system is located in level two.

Table 1: Background to the conflict between small- and large scale gold miners in Suriname

Suriname, located at the northern coast of South America, is the 17th richest country in the world in terms of natural resources. These resources are located in the soil of standing tropical rainforest that comprises approximately 85 percent of the country's land area. For more than 150 years, the tropical forest has been inhabited by independent communities of indigenous peoples and runaway slaves from West-African descent called maroons. These groups make up 0.4 percent and 10.8 percent of the half a million people living in Suriname respectively (Algemeen Bureau voor de Statistiek in Suriname & Conservation International, 2010). Both indigenous peoples and maroons are using the forest lands for their subsistence, most importantly for construction materials, medicines, and food.

Gold is one of the natural resources extracted since the 1700s. In the last thirty years, the popularity of the sector increased after a civil conflict and the influx of Brazilian gold miners into Suriname. Today approximately twenty-thousand small-scale gold miners are active in the Suriname forest of which 75 percent are migrants from Brazil (De Theije & Heemskerk, 2009). In addition, another twenty thousand local people provide services to the gold mining sector in transportation, vending goods, and other services, e.g. prostitution.

The gold deposits are located in the eastern part of Suriname, predominantly inhabited by maroons. The maroons control travel within and from their land (Heemskerk 2002). Although the government is the legal owner of all land in Suriname, maroons strongly believe they are entitled to exploit the underground and aboveground resources. The maroons argue that the land is essential for their livelihood and have maintained sustainably for over 150 years. Maroons are in conflict with the government in regards to land rights (Inter American Development Bank, 2011). On several occasions the government has granted rights to logging and mining concessions to third parties within the lands inhabited by maroons without consulting them first. As a result, the Organization of American states ruled against the government to grant titling and rights to maroons (Del Prado, 2006). However, land rights still remain to be settled and a feeling of uncertainty exists between the maroons and international investors.

In particular uncertainty exists in Brownsweg, a cluster of six villages resettled as a result of a hydro dam construction in the 1960s. Brownsweg has approximately 6000 inhabitants of whom 20 to 30 percent are involved in small-scale gold mining. The village of Nieuw Koffiekamp (NK) with approximately 500 inhabitants heard they need to relocate once again (MacKay, 2002), because as it is located in an exploration concession for gold granted to a Canadian multinational by the government. The local villagers ignored the government's wishes to relocate and have complained they would be prohibited from continuing small-scale mining in the concession.

In 2001, the government granted the exploitation and by 2005 tension between the company and the local miners from NK rose during the first year of operations. The company's strategy was to support the community with development projects such as building a school and training center, as well as supporting income generation activities. The company also initiated training for the miners to recover mercury, a toxic substance released into the environment (Redjokromo, 2005). However, tension reached a highpoint when the government recruited armed security men to guard the company against rebellious miners as called for by which the government and company's contract. By October 2008 the conflict escalated because the NK miners moved closer to the mine operations, and two small miners were injured during the forced removal (Poetisi, 2008). Since then, small eruptions of conflict are evident (De Ware Tijd, 2013a; De Ware Tijd, 2013b)

Since the escalation in 2008, the company chose to handle the conflict differently by temporarily allowing the small-scale gold miners on their concession. The company was desperate to find ways to move away from their negative image and began to interact with NK through a small miner's organization. At present, the small-scale mining activities are encroaching on the company's operation and are a serious environmental and safety concern. Therefore, the company wants to implement development projects for the NK community and where miners use environmentally safe and healthy techniques. With this NK miners will adhere to company policy and will coexist in the concession area. The implementation of these so-called development projects have been problematic. Historically NK miners have been using "hit and run" practices to make a living so development projects that envisage long-term goals are not their primary interest.

Level-Specific Analysis

Now that the system is placed at a specific conflict assessment level, the practitioner analyzes each previous level until reaching the level in which the system is placed; for the Suriname case the analysis stops at level two. Each level is analyzed by answering a set of guiding questions with the collected data. These questions capture important information for identifying potential conflict drivers which will be organized in the MAPCID matrix described in the next section.

Level 1: Analyzing the Support Structure through Communication, Awareness, Social Learning and Cooperation

Communication

Communication is the ability of the community and DO to send and receive messages in any form in which they have a mutual and true understanding of the message. Sending and receiving a message can occur in different forms: direct/indirect, verbal/nonverbal, narratives (stories and metaphors), and symbols (ceremonies, rituals, art, clothing). Communication is needed for the community and DO to discuss their shared goal and mitigate the potential for conflict. It is important that the DO should not use communication as a coercive measure in negotiations with the community.

Our concept is based on the communicative action theory by Jürgen Habermas (1984). His theoretical concept of communication refers to an unequal status and power between parties and the absence of cultural freedom expressed in distortions in understanding, truth, sincerity, and rightfulness (Habermas, 1984; Ritzer, 2008, p. 292). In Habermas' view there is an inability to communicate between the community—which operates in a normative way—and the DO—whose operation is based on a system of bureaucratic rules and guidelines. To get a better understanding about power differences and conflict in communication, the guiding questions are:
1. How do the parties normally communicate? What is the most effective way of communication between the parties?
2. What barriers exist to communication between the parties? (frames, language, dialogue)
3. Who should communicate with whom to promote effective communication between the parties?

These questions guided the communication analysis for the Suriname case study. Communication is mainly verbal between the DO and community. The primary languages used are the national language *Dutch* (written) and the local language *Sranan Tongo* (mostly verbal). Cell phone communication has improved the dissemination of information throughout the area, especially between villagers. However, cell phone communication depends on the availability of electricity and communication towers, and since many areas do not have electricity hence access, communication becomes challenging. For those areas that have no cell phone capability, information moves from person to person between villages. The DO has hired community liaisons to improve communication with the community. The main barrier to communication between parties is the imbalance of power: the DO possesses more expert knowledge and legitimacy. Other barriers to communication are caused by differences in values about mining resulting from their respective cultures, more specifically, the community sees mining as a means to survive for the short term while the DO focuses on long term income sustainability.

Awareness

Awareness is the ability of a DO to sensitize itself by becoming familiar with the community's culture, history, and political system. Culture is defined as the beliefs, values, behavior, and material objects that constitute a people's way of life. The DO, as the larger power party, needs to find ways to increase their awareness in order to prevent a wrong interpretation of the community. Increased awareness of the community potentially will enhance its understanding and prevent potential conflict between parties.

MAPCID's concept of awareness is based on the theoretical analysis of culture developed by Kevin Avruch (2006). Avruch argues cultural analysis should include a continuous interpretation of the observations that one makes (Avruch & Black, 2001). Accordingly, the DO should undergo a cultural awareness process by being sensitive to change. We can assess the awareness level about the community with the following guiding questions:

1. Have the parties previously been open to cultural change? Under what circumstances were they open to cultural change? How can the community be stimulated for cultural change?
2. How do the parties normally respond and adapt their behavior to new circumstances/choices?
3. What are the barriers to understanding the cultural change in the community? (learning, interaction)

Revisiting the Suriname Example

Compared to the rigid multinational, the community has less difficulty responding to new circumstances since they have been adapting to change for centuries. For example, the local community easily learned more advanced and lucrative methods for extracting gold from Brazilian miners. However, one self-defeating barrier to social change is the lack of empowered women in the community. Women are dependent on men for their livelihood, and they have limited means of making money except for support services to the small-scale mining operations and the production of small household or agricultural products. Frequently the males have multiple partners/wives in different villages making it difficult for the men to provide financial support for all their partners and their offspring.

Social Learning

Social learning is the creation of a system to collaboratively learn and achieve the shared goal. Social learning occurs when new information and knowledge is processed, adopted as one's own, and infused into the project. The DO always has more knowledge (and power) about the project since they initiated it. It is crucial that the DO does not force its point of view upon the community; instead they need to develop a common understanding and basis for joint action. Only then conflict can be mitigated.

Our concept of social learning operates from an elicit framework developed by John Paul Lederach (1995). His theoretical model proposes a bottom-up training process in which groups are socially empowered to participate and make a change. Social learning can be a transformative process when it is "iterative and continuous that is thought to enhance the flexibility of the socio-ecological system and increase its ability to respond to change" (Johnson et al., 2012, p. 9). The concept of social learning is described extensively in international development and is a means to promote participation of less powerful groups in development

processes. The guiding questions for analyzing the potential for social learning between parties are:

1. Have the parties previously received training about a subject? Did it make a positive or negative contribution to the process? How can it be improved?
2. How do the parties normally learn? (epistemology) What is the most effective way for parties to continue the learning process?
3. What is the preferred mode of knowledge transfer? (oral, written) What could block the transfer of knowledge between parties? What could block the generation of new knowledge? (lack of resources, sensitivity)

In the Suriname study, the parties have diverse learning styles. The obvious learning style demonstrated by the small-scale miners is experimentation. They will adopt a new methodology for goldmining after seeing that it potentially can gain more profit. The DO uses scientific concepts and knowledge obtained from other companies or studies. The difference in educational levels is a barrier in social learning. Since education ceased during the civil war from 1986-1992, new knowledge is difficult to generate. Many elementary schools were destroyed, and the teachers fled to the capital city. Today, the majority of students are sent to boarding schools in the capital city away from their families. Once a child leaves the village to become educated, rarely does he or she return. Yet, other students need to attend schools a distance away requiring them to travel from their villages early in the morning. Additionally, there is lack of adult education opportunities which contributes to the knowledge gap as well.

Cooperation

Cooperation stems from the community and DO working together respectfully and accepting the other. Respect includes the adherence to the community's culture. Acceptance means acknowledgment of and talking from the other's point of view and then adopting it as one's own. Respect and acceptance are imperative between the community and the DO for mutual decision making. Cooperative action in decision-making does not mean forcing a decision on the other without agreement because this is how conflict is instigated.

MAPCID's concept of cooperation is grounded in the work of conflict theorist Morton Deutch (2006). Deutch's analysis discusses cooperation as a system, and it rests on three processes: substitutability refers to accepting the activity of others in fulfilling one's needs; attitude refers to the tendency to respond in an evaluative manner; and inducibility discusses the willingness to accept another's influence—to do what he or she wants. These processes should occur simultaneously to mitigate conflict between the community and DO. If both the community and DO can adhere to substitutability, attitude, and inducibility, we assume there is a system in place that promotes collaboration.

The guiding questions for analyzing potential for conflict in the system of cooperation between parties are:

1. Have the parties previously cooperated successfully? What is their most preferred mode of cooperation? (substitutability, attitude, inducibility)
2. How do the parties normally cooperate with others? (topics, norms) How can they be empowered to cooperate?
3. What barriers exist to cooperation between parties? (information, social-structure, transparency)

The Suriname situation teaches us that small-scale miners and the DO have previously cooperated with traffic control. Community members and the DO also worked collaboratively on a few successful community projects such as constructing a water system and an athletic field. The large-scale mine operator introduced new business opportunities for the community by selling byproducts of the mining process such as crushing large stones into gravel. The company also buys locally grown agricultural produce for its cafeteria and seems to prefer substitutability. Barriers that exist for cooperation between the community miners and the large-scale operator are: distrust in information sharing, resource disparity, and a discrepancy between the methods used by the western-oriented DO and traditionally living community.

Level 2: Basic Human Needs Analysis

Human need analysis draws from Abraham Maslow's hierarchy of needs. Maslow (1943) notes human motivation stems from their needs. Once a need is satisfied, then the subsequent need in the hierarchy can be met. Human needs are more than food, water, and shelter; there are nonphysical elements that individuals are innately driven to attain and which are needed for human growth and development, such as recognition and belonging (Burton, 1990).

In addition, Burton (1990) argues needs, rather than interests, are the root of protracted conflicts. His theory provides a basis for understanding the sources of conflict and designing conflict resolution interventions. It is important to the success of intervention that the people in the community have access to their most basic survival needs such as food, shelter, water, air, and security.

The guiding questions for the basic human needs analysis are:

1. Does the community have uninterrupted access to their basic needs? Are these needs met in a sustainable manner? Does the community have any unmet human needs?
2. What value does the community place on basic needs of food, shelter, water, clothing, air, and security? (low, medium, high) How does this differ from that of the DO?
3. What strategies do the parties have to ensure the sustainability of the community's basic needs? (hierarchy, protocols)
4. What barriers are present that may prevent them from having ongoing access to their basic needs? (limited or lack of resources)

Reexamining the Suriname example, the responses to the guiding questions reveal that the community does not have continuous access to safe food, clean drinking and bathing water, and electricity, all of which are basic needs. The mercury used by small-scale gold miners spills into the creeks, and most villages do not have a running water supply system so the contaminated river is their main source of water. In addition, the mercury run-off in the river builds up in local fish, the main supply of protein for the village men and women.

The DO emphasized the lack of regulation to govern small-scale gold mining operations and presented challenges to educating miners about safer methods of mining which are less harmful to the environment. Beginning in 2013, the government developed mining training centers in the interior to raise awareness and educate miners about the benefits of and procedures for using environmentally safer gold mining techniques. These centers provide educational programs at the community level that teach about long-term health risks from the unsafe use of mercury. Additionally, it is hoped that through such programming, trust will be built and the community will gain the capacity to understand and embrace the long term costs-benefits of environmental

sustainability. Yet, regardless of these efforts of the DO and the government, there is no immediate focus on aiding the community in fulfilling their basic needs of safe food and water.

Thus far, we have analyzed the Suriname case study up to level two which is where the system subsists. As the system moves up through the model during the development project, the practitioner adds one level at a time by answering the level-related guiding questions upon reaching level seven.

Next, we will discuss the theoretical concepts and corresponding guiding questions of levels three through seven.

Level 3: Community Maintenance, Ownership and Identity Participation

Maintenance

Maintenance is the capacity of the community to preserve an internal system which sustains their livelihood. Maintenance, usually a long-term process, needs to be managed from the inside. Choices for maintenance are generated at the household level and are based on "social organization, such as networks, norms and trust that facilitate coordination and cooperation for social benefit" (Adhikari & Goldley, 2009, p. 185).

The international development field describes maintenance as one of the communities' livelihood strategies. MAPCID's concept builds on the community's social responsibility to its members to provide their basic needs and moreover, to promote community cohesion for the future. When communities are expected to actively participate in development activities, their daily patterns of performing maintenance tasks can be interrupted leading to their withdrawal or conflict (Dorward et al., 2011).

The guiding questions for analyzing the potential conflict for maintenance in development projects are:

1. Does the community have the ability to develop structures for moving beyond maintenance and entering into development? (cognitive and bridging capital, commitment, cohesion, leadership, level of organization, dispute resolution, network, goal setting)
2. What value does the community place on maintenance? (low, medium, high) How does this differ from that of the DO?
3. How has the community successfully maintained itself in the past? What is their preferred system for maintenance?
4. What barriers exist to maintenance of the community? (status, power, attitude, resources)

Ownership

Ownership occurs when the community takes responsibility for their own actions and its outcomes. Development projects last over the long term if the community takes some level of responsibility over the fate of the project. If ownership does not occur, projects may fail or become unsettled because of (unnecessary) disputes and conflicts (Daftary, 2010).

The community development literature demonstrates that ownership can be promoted when communities have a voice and take responsibility for emerging problems (Gibson & Woolcock, 2008; Lachapelle, 2008; Msukwa & Taylor, 2011). MAPCID's focus of ownership is to have

shared responsibility between the community and the DO, enabling them both to work towards reaching the shared goal.

The guiding questions for analyzing potential conflict of ownership in development projects are:

1. Has the community previously demonstrated ownership? (voice, engagement, transparency, accountability, empowerment, decision-making)
2. What values does the community place on ownership? (low, medium, high) How do they differ from those of the DO?
3. What decisions does the community normally make to create and visualize ownership? Who is involved in that decision-making?
4. What barriers exist to creating ownership in the community? (social structure, hierarchy)

Identity Participation

Identity Participation is the ability of the community to take part in the decision-making of the development project without losing their identity. Identity participation is not only information sharing or engaging in dialogue, but also involves the alignment of the community's goals through participation in the decision-making process (Simpson & Gill, 2007). Shared decision making respects identity and prevents passiveness, withdrawal, or conflict. Furthermore, shared decision-making also improves project sustainability (Bigdon & Korf, 2004).

Identity participation builds on the work of development practitioner Robert Chambers (1997). He created methods allowing for a marginalized community to become an informed participant in the development project. In this context, participation is deemed to be an empowerment tool and occurs when there is a bottom-up approach; shared power by involving the whole community instead of individuals and opening space for learning by using visual aids (p. 154).

The guiding questions for analyzing potential conflict related to identity participation in development projects are:

1. Does the community have experience with participation in projects? What is the most effective way for them to participate?
2. What value does the community place on participation? (low, medium, high) How does this differ from that of the DO?
3. How was participation previously promoted in the community? What is the community's preferred way of creating effective participation?
4. What barriers exist to creating community participation? (gender, age, knowledge, status, identity, time)

Level 4: Analysis of Existing Structures and Systems

Structures and Systems

Structures are the complex set of socio-economic links and patterns existing in the community. Systems are the interacting components of the structures. Analyzing the systems and structures of the community is critical for successful development projects. When the DO understands and includes the community's customs, values, and norms within their plans, the interaction of systems and structures occurs (McGee, Gullon, & Gunton, 2010). If a project is

incompatible to existing community systems, positive interaction does not occur thus, making conflict inevitable.

The concept of structures and systems originates from Talbot Parsons' Structural Functionalism Theory. According to Parsons (2003), social change can only materialize when the development project is planned congruently with the cultural system of the community. The system can neither be so radically different from the normal functioning of the community actors or personalities involved, nor upset the fairly stable integration of the culture. The community must have a number of members who strive to act in harmony with their roles' requirements in the development system (Parsons, 2003).

The rationale for this concept is to coordinate the systems of community and DO through the shared goal. Creating shared goals emanates from the social conflict theory of Louis Kriesberg (2003). Kriesberg believes social change is a function of the discrepancy between the goals of the parties. In his theory, the formation of goals is as a way to "achieve greater integration include attaining equal opportunities for educational and occupational positions, become assimilated, imposing conformity, or converting the other side" (p. 77). Furthermore, when the DO and community have achieved their shared goals, it is less likely they will enter into conflict (Kriesberg, 2003).

The guiding questions for analyzing potential conflict related to building on existing systems in development projects are:

1. Does the community have experience planning projects? How are ideas gathered and then incorporated into the planning process?
2. What values does the community place on its own systems? (low, medium, high) How do they differ from those of the DO?
3. How do the parties create understanding and set value in the planning process? How is this expressed in the planning process? (protocols)
4. What barriers exist to cultural-sensitive planning in the community? (gender, age, knowledge, status)

Level 5: Analysis of the Potential for Innovation

Innovation

Innovation refers to the community and DO creating new tools and processes for improving existing systems to achieve a shared goal. Innovation is a beneficial way for the community to adapt to the continuously changing environment and has the potential to promote community well-being, especially when it is linked to economic growth (Buchanan, Cole, & Keohane, 2011; Papaioannou, 2011). If innovations are kindled, the DO can seek a protracted and sustainable improvement of the development process thus, lessening the potential for conflict (Aubert, 2010).

Innovation in marginalized communities is directly connected to social entrepreneurship. Social entrepreneurship assumes that when there is an organizational or power shift, people will automatically start looking for alternatives and become inventive (Mulgan, Tucker, Ali, & Sanders, 2007). Innovation should build on the capacities of the community and their assets (Alvord, Brown & Letts, 2004; Cassiolato, Couto Soarez, & Lastres, 2008). It should be encouraged and employed so it enhances the people's livelihoods rather than work against it. In

this level, the following questions guide the analysis of the potential for innovation that the system possesses:

1. Do the parties have experience with developing new processes and goods? How do the parties create and reinforce new innovations? (protocols)
2. What value does the community place on innovation? (low, medium, high) How does this differ from that of the DO?
3. How do the parties define their long-term innovation goals in order to secure sustainability? (competence, politics)
4. What barriers exist to innovation among the parties? (aspirations, power, knowledge, outside pressure)

Progress and Development

Progress and development are a result of innovation. At this stage, the community continuously grows and develops to reach the shared goal. The community and DO are believed to become a stable fusion that can problem-solve and expand (Sutz & Arocena, 2006). This concept builds on the principles of sustainable development. Sustainable development is that which meets the needs of the present without compromising the ability of future generations to meet their own needs (United Nations, 1987). Projects should meet and progress and be measured across three criteria simultaneously to achieve sustainable development: economic development, social development, and environmental protection.

The guiding questions for analyzing the potential conflict related to progress in development projects are:

1. Do any of the parties have experience with development? How do parties cope with or overcome the challenges they face?
2. What value does the community place on development? (social, economic, environmental) How does this differ from that of the DO?
3. What strategies do the parties have to assure progress and development that result in needed change but do not create conflict? (protocols)
4. What are the barriers to progress and development among the parties? (technology, capacity, interest)

Level 6: Follow Up, Feedback and Guidance Analysis

Follow Up

Follow up occurs when the DO checks in with the community to evaluate their transformation and efforts toward achieving the shared goal. Follow up is indispensable to empowering the community, the lesser power party in the relationship. It also safeguards smooth transformation of both the community and DO and therefore, contributes to potential conflict prevention.

Following the transformative model of Bush and Folger (2005), the concept focuses on improving the interaction between parties. Each party discusses their own goals and effectively listen to the other party's interests. In MAPCID, the DO encourages discussion with the community and offers recognition of the community's past, present, and future endeavors.

The guiding questions for analyzing potential conflict related to follow up in development projects are:

1. How have the parties previously been involved in the follow up process? What is the preferred way of follow up to promote partnership and create trust?
2. What value does the community place on follow up? (low, medium, high) How does this differ from that of the DO?
3. How can follow up be promoted? What is needed to encourage integrity and trust, as well as fortify relationships between the parties? (protocols)
4. What are the barriers to follow up between the parties?

Feedback

Feedback occurs when the DO shares results discovered during the follow up with the community. Feedback is a pre-phase for providing true guidance to the community. Feedback should be delivered using the constructive critique method: a process whereby the sender's critique starts with a positive statement, followed by the actual critique itself, and then concludes with a positive statement to ensure it is received effectively by the receiver.

The skilled facilitator approach by Swartz (2002) provides reinforcement for the feedback concept. This approach integrates theory into practice and creates a value-based, systemic method to community facilitation. In the same line of thinking, the DO serves as a teacher-facilitator and helps the community to improve their development process until they become self-facilitating. The community then receives positive and negative feedback in a neutral manner thereby encouraging open discussions and further promoting the community's empowerment.

The guiding questions for analyzing the potential conflict related to providing feedback in development projects are:

1. How have the parties previously been involved in giving feedback? What is their preferred way of giving feedback? (communication)
2. What value does the community place on feedback? (low, medium, high) How does this differ from that of the DO?
3. How can feedback be promoted to make sure all of the community's concerns are addressed?
4. What barriers exist to the giving and receiving of feedback?

Guidance

Guidance is given by the DO offering alternatives based on their knowledge and experience supporting the community's empowerment. Guidance is also based on the principles of recognition and empowerment, the main elements of the transformative mediation model of Bush and Folger (2005). In MAPCID, guidance is a necessary act of free discussion between parties, rather than locking communities in formal structures that may inhibit true guidance (Beck & Purcell, 2010).

The guiding questions for analyzing the potential conflict related to guidance in development projects are:

1. How has the community previously been advised? What is the preferred mode of guidance for the community?

2. What value does the community place on guidance? (low, medium, high) How does this differ from that of the DO?
3. How can guidance be improved to assure transparency and collaboration between parties? (strategies)
4. What are the barriers to guidance of the community? (worldview, pride, resistance)

Level 7: Empowerment Analysis

Empowerment is a self-awareness process enabling local people to analyze their own situations, take control, gain confidence, and make their own decisions (Chambers, 1997). In the model we envision the community undergoing a transformation process to become empowered. The main goal of this transformation process is to address the needs and values of the community so they may claim power and justice at the local level (Bigdon & Korf, 2004). We assume that transformation includes changes in the structure of the relationship between the community and the DO.

The guiding questions for analyzing empowerment are:
1. How does a community define empowerment? Does it differ from that of the DO?
2. What value does the community place on empowerment? Does it differ from that of DO?
3. Are there any barriers present that would prevent members of the community reaching empowerment?
4. What strategies do the community and DO have to ensure the sustainability of their empowerment?

Environment

The environment is the aggregate of conditions or influences surrounding and affecting the development project. Systems that interact with the environment survive through change (Constantino & Merchant, 1996). The guiding question for the environment analysis is: How does the outside environment influence the interaction between donor, DO, and community? (antagonistic, synergistic).

Returning to our Suriname example, the community lives in the "interior" of Suriname. The interior has been stigmatized by the coastal Surinamese people as the place for runaway slaves. Living in the interior is generally primitive and uncomfortable due to the absence of electricity and running water. Hence, most teachers do not want to work in the interior of Suriname which directly contributes to the poor education level of the average community members. Poor education levels are negatively affecting the interaction between the parties. Another negative factor is the lack of environmental legislation: the government has no method of controlling the current operations of small-scale miners as well as poor infrastructure to measure pollution into the environment. Small-scale miners are not encouraged to cooperate to keep the area clean. As mentioned, numerous factors from the surrounding environment have a negative impact on the system. Each of these factors may potentially cause conflict.

The MAPCID Matrix

The information gathered through the level analysis is organized in the MAPCID matrix. The matrix offers an overview of the (potential) conflict drivers between parties undergoing

development. For our Suriname case study, we developed the matrix of community and DO engaging in gold mining which is illustrated in Figure 3. The matrix demonstrates a developmental gap between the parties; the DO is already executing activities on level five, for example, promoting technological innovations for safe mining, while the community still is on level two and is struggling for their basic needs. Presently, the parties do not have a shared goal.

The MAPCID matrix provides a basis for reflecting on interventions that balance power and contribute to conflict-reduced development. The DO employs relatively more power (expert and legitimate power) and to balance this power, the system needs to move to the level of the lowest power party: level two. The task of the conflict practitioner is to close the gap between levels two and five through interventions. Interventions are developed at each level when there is a disconnect between DO and community which should ultimately lead to alignment of interests and power so that parties can create a shared goal.

Reviewing the Suriname case study, the conflict practitioner can bridge levels two to three with several interventions. Promoting *maintenance* can be simulated with sustainable agricultural projects where the mining company buys products from the women in the community. Initiating a collaborative cartography project can bring important cultural elements to the forefront leading to increased *ownership* with the community. *Identity participation* can be improved by creating an equity platform for discussing value and communication differences, plus giving voice to the community. Similarly, when the system exists in level three, the conflict practitioner wants to make sure the project is *built on the existing system* in order to move to level four. Potential interventions include more efficient mining techniques and culturally acceptable alternatives to small-scale mining such as a wood processing factory accompanied by a vocational school set up to support it.

Thus, the practitioner systematically answers the guiding questions and suggests interventions as the system moves up the levels. While progressing through the levels, the community and DO can negotiate further project development towards reaching the shared goal in level seven. Sometimes negotiation may stall because there is a discrepancy between the community and DO. The system may return to a lower level allowing a "loop back" (Figure 2). To illustrate, in the interior of Suriname, a development organization wanted to improve the existing water system in a community. The organization introduced technological devices (Global Positioning System, abbreviated GPS) for mapping the locations of the existing water system in the village. The organization was aware that a group of men in the community had already been trained in using GPS devices, so they motivated the men to use GPS to mark the water pits and connectors in the village. At this stage of development, the system exists in level four (Building on Existing Structure and Systems) since the organization is building on the existing GPS knowledge in the village.

Unexpectedly the women felt excluded from this project because culturally they are responsible for providing clean water to their families. To resolve this problem, the system needs to return to level three (Community Maintenance, Ownership, and Identity Participation) and find a way to facilitate the women's participation in the process. Only then does the development process align with the cultural requirements of the community. As the example illustrates, the community dynamic is captured by going backward, allowing a "loop back" in the system levels. The flexibility of going backward in the conflict assessment model enables the practitioner sufficient time for thorough analysis of the system and management of (potential) conflict (Constantino & Merchant, 1996).

Figure 3: The MAPCID Matrix

MAPCID Levels of Analysis	DEVELOPMENT ORGANIZATION Large-Scale Mining Company	COMMUNITY Maroon Community including Small-scale Miners
Level 1: Support Structure		
Communication	Written communication in Dutch Liaison exists between parties.	Verbal communication Limited proficiency in Dutch
Awareness	Limited understanding community culture Aware of community adaptive capacity	Aware of power imbalance Response measures company unclear Lack of empowered women
Learning	Use of technical language Initiate knowledge transfer because of higher educational level	Limited opportunities for training Poor affinity of educated youth for area Learning through experimentation
Cooperation	Cooperative efforts on traffic and other projects Legally own the gold resource Lack of regulation of gold mining practices	Acceptance of new industry development with mining by products Distrust company because of alliance with government Establishment of organization by goldminers
Level 2: Meeting Basic Human Needs		Experience mercury contamination of water and food Place high value on water and food
Level 3: Degree of Community Participation and Ownership		
Maintenance		
Ownership		
Identity Participation		
Level 4: Capacity to Build on Existing Structures		
Level 5: Trend towards Innovation and Progress		
Innovation	Alternative mining techniques	
Progress	Knowledge transfer on safe mining techniques	
Level 6: Feedback, Follow up and Guidance		
Feedback		
Follow up		
Guidance		
Level 7: Empowerment		
The Environment	Lack of environmental legislation	Stigmatized development in living area of communities

Conclusion: MAPCID as a Tool for Development Practitioners

MAPCID is a conflict analysis tool specifically designed for development processes. These processes are characterized by a power difference between parties and complex dynamics that have proven to change over time. MAPCID encourages conflict practitioners to analyze at each phase of the development process, and then urges small interventions that promote the power balance. Compared to existing conflict assessment tools MAPCID is different. One such tool is the Social Cubism model developed by Byrne and Carter (1996) which focuses on the relationship between parties and how it may change over time, in terms of demographics, religion, history, economic factors, political factors, and psychocultural factors. Social cubism is specially designed to analyze the relationship for deeply rooted structural conflicts which is notably different than development projects which last just several months or a few years.

Another tool used by conflict practitioners is Wehr's conflict mapping methodology (Wehr, 1979). The tool uses a systematic collection of information about the parties, their values, and the dynamics between them. Similar to MAPCID, Wehr's conflict mapping uses a systems approach consisting of the parties and the outside environment. Its focus is on the interaction between the parties, including triggers and specifics contributing to polarization. MAPCID goes one step further and enables conflict practitioners to capture dynamics not just when problems begin to emerge but before the conflict commences. The preventive approach of MAPCID allows practitioners to identify potential conflict and transforms it with interventions throughout the different phases of the development process.

Development organizations from Germany (GTZ), the United Kingdom (DFID), the United States (USAID), and other countries have designed several conflict mapping tools aimed at risk assessment for their investment (Kiplagat et al., 2004). When compared to MAPCID, these tools view conflict from the interest of the donor. In contrast, our model positions the community as the focal point and enables the conflict practitioner to intervene by making sure the community is effectively engaged in the development process.

MAPCID assumes that a micro setting will promote sufficient and equitable dialogue. Ruth-Heffelbower (2002) understands from experience that constructive dialogue, clear intentions, and equity maintenance are the most important factors in promoting peace in development. Only then will the views of the less powerful be included and the power balance maintained. Because MAPCID promotes all of these factors, it can be used by practitioners as a tool to assess and manage power differences. If the power balance cannot be restored by the parties, the conflict practitioner should intervene and try to engage the less powerful party in the initiative. It is the job of the conflict practitioner to promote dialogue and ensure transparency and equity in the conversation. The practitioner takes a transformative point of view, checks in and steers the conversation (Bush & Folger, 2005).

Limitations of MAPCID

MAPCID is specifically designed for the practitioner analyzing intractable conflict in only one system of donor, DO, and community. If more than one development activity is introduced in a community, the conflict practitioner should do several sets of MAPCID analysis at the same time. One limitation of this approach is that systems often interact with each other. These interactions can provide (hidden) triggers that attribute to growth and escalation of conflict.

We developed the model based on the most frequently occurring conflicts in developing societies using literature, observations, and our own field experience. However, not all development projects may be suited for MAPCID, for example, projects without large power difference between community and DO/donor. One such project might be road construction in a relatively "well established" neighborhood. In that case, the community has enough voice and resources to self-regulate conflict, and third party intervention becomes unnecessary.

We assume that conflict practitioners can use MAPCID in all kinds of situations of large power differences in development. Outside the development field, the model is difficult to use because we assumed that communities have the ability to set goals and negotiate to improve their future. In other fields this may not be the case. For example, in the field of organizational conflict, organizations have hierarchical structures that may hinder parties developing a well-defined path of improvement. Furthermore, in the field of international conflict, MAPCID also might not be applicable because shared goals are difficult to set. This type of conflict is characterized by repetitive cycles of conflict over time in which parties may constantly change their goals.

Practitioners can use MAPCID to analyze conflict at the local level. Further research is needed on how to expand the model to regional levels. This might be achieved by including more stakeholders in the models' environment concept. Outside stakeholders are then considered as forces to influence the system either positively or negatively.

References

Adhikari, K. P., & Goldley, P. (2010). Social capital and its "downside": The impact of sustainability of induced community-based organizations in Nepal. World Development, 38(2), 184-194.

Algemeen Bureau voor de Statistiek in Suriname & Conservation International. (2010). Environmental Statistics. Paramaribo, Suriname: Algemeen Bureau voor de Statistiek.

Alvord, S. H., Brown, L. D., & Letts, C. W. (2004). Social entrepreneurship and societal transformation: An exploratory study   . Journal of Applied Behavioral Science, 40(3), 260-282.

Aubert, J. E. (2010). Innovation policy: A guide for developing countries. Retrieved from http://hdl.handle.net/10986/2460

Avruch, K. (2006). Culture and conflict resolution. Washington, DC: United States Institute of Peace.

Avruch, K., & Black, P. W. (2001). Conflict resolution in intercultural settings: Problems and prospects. In P. K. Chew (Ed.), The conflict and culture reader (pp.7-14). New York, NY: New York University Press.

Barron, P., Diprose, R., & Woolcock, M. (2007, April). Local Conflict and Development
    Projects in Indonesia: Part of the Problem or Part of the Solution? (Working Paper No.
    4212). doi:10.1596/1813-9450-4212

Beck, D., & Purcell, R. (2010). Popular education practice for youth and community
    development work. Exeter, UK: Learning Matters.

Bigdon, C., & Korf, B. (2004). The role of development aid in conflict transformation:
    Facilitating empowerment processes and community building. Retrieved from
    http://www.berghof-handbook.net/documents/publications/bigdon_korf_handbook.pdf

Brennan, M. A., & Israel, G. D. (2008). The power of community. Community Development:
    Journal of the Community Development Society, 39(1), 82-99.

Buchanan, A. E., Cole, T., & Keohane, R. O. (2011). Justice in the diffusion of innovation.
    Journal of Political Philosophy, 19(3), 306-332. doi:10.1111/j.1467-9760.2009.00348.x

Burton, J. (Ed.). (1990). Conflict: Human needs theory. Baltimore, MD: Macmillan Press.

Bush, R., & Folger, J. (2005). The promise of mediation: The transformative approach to conflict
    (Rev. ed.). San Francisco, CA: Jossey-Bass.

Buursink. (2005). Country Environmental Assessment Suriname. Paramaribo, Suriname: Inter
    American Development Bank.

Byrne, S., & Carter, N. (1996). Social cubism: Six social forces of ethnoterritorial politics in
    Northern Ireland and Québec. Peace and Conflict Studies, 3(2), 52-72.

Cambior. (2002). Rosebel project technical report Suriname, South America. Retrieved from
    http://www.iamgold.com/Theme/IAmGold/files/operations/43-
    101%20Technical%20Report%20Rosebel,%20Cambior%20Sept%202002.pdf

Cassiolato, J., Couto Soarez, M. C., & Lastres, H. (2008, March). Innovation in unequal
    societies: How can it contribute to improve equality. Retrieved from
    http://www.unesco.org.uy/cultura/fileadmin/templates/cultura/cultura-
    mercosur/archivos/CyT/Resumen-Couto25-3-08.pdf

Chambers, R. (1997). Whose reality counts? Putting the last first. London, UK: Practical Action
    Publishing.

CEDLA. (2013). Small-scale gold mining in the Amazon; The cases of Bolivia, Brazil,
    Colombia, Peru and Suriname. Cuadernos del CEDLA 26. Amsterdam, Netherlands:
    CEDLA.

Constantino, C. A., & Merchant, C. S. (1996). Designing conflict management systems: A guide
    to creating productive and healthy organizations. San Francisco, CA: Jossey-Bass.

Daftary, D. (2010). Democratic decentralization from the bottom up: The comparative effect of
    wealth and electoral capital on elected leaders' distribution of development. Social
    Development Issues, 32(2), 42-54.

De Theije, M., & Heemkerk, M. (2009). Moving frontiers in the Amazon: Brazilian small-scale
    gold miners in Suriname. European Review of Latin American and Caribbean Studies, 87, 5-
    25.

De Ware Tijd. (2013a, July 31). Oplossing goudzoekers Rosebel mijn binnen handbereik. De
    Ware Tijd Newspaper. Retrieved from http://www.dwtonline.com

De Ware Tijd. (2013b, October 1). Beschoten goudzoeker rekent op compensatie Rosebel. De
    Ware Tijd Newspaper. Retrieved from http://www.dwtonline.com

Del Prado, N. (2006). An analysis of land rights of the indigenous peoples and Maroons in
    Suriname. Paramaribo, Suriname: Amazon Conservation Team Suriname.

Deutsch, M. (2006). Cooperation and competition. In M. Deutsch, P. T. Coleman, & E. C. Marcus (Eds.), The handbook of conflict resolution theory and practice (pp. 23-42). San Francisco, CA: Jossey-Bass.

Dorward, A., Anderson, S., Bernal, Y. N., Sánchez Vera, E., Rushton, J., Pattison, J., & Paz, R. (2011). Hanging in, stepping up and stepping out: Livelihood aspirations and strategies of the poor. Development in Practice, 19(2), 240-247.

Fiki, O. C., & Lee, B. (2004). Conflict generation, conflict management and self-organizing capabilities in drought-prone rural communities in north-eastern Nigeria: A case study. Journal of Social Development in Africa, 19(2), 25-49.

Galtung, J. (1996). Peace by peaceful means: Peace and conflict, development and civilizations. Thousand Oaks, CA: Sage.

Gibson, C., & Woolcock, M. (2006). Empowerment, deliberative development, and local-level politics in Indonesia: Participatory projects as a source of countervailing power. Studies in Comparative International Development, 43(2), 151-180.

Habermas, J. (1984). The theory of communicative action. Boston, MA: Beacon Press.

Hansen, T. (2013). The generalist approach to conflict resolution: A guidebook. Lanham, MD: Lexington Books.

Healy, C., & Heemskerk, M. (2005). Small-scale goldmining in Suriname: Reforming the sub-sector to promote sustainable mining and increase the take of the miners and the Government. Paramaribo, Suriname. World Wildlife Fund.

Heemskerk, M. (2002). Livelihood decision making and environmental degradation: Small-scale gold mining in Suriname. Society and Natural Resources, 15(4), 327-344.

Inter American Development Bank. (2011). Land rights tenure and use of indigenous peoples and maroons in Suriname. Support for the Sustainable Development of the Interior-Collective Rights. Paramaribo, Suriname: Ministry of Regional Development.

Johnson, K. A., Dana G., Jordan, N. R., Draeger, K. J., Kapuscinski, A., Schmitt Olabisi, L. K., & Reich, P. B. (2012). Using participatory scenarios to stimulate social learning for collaborative sustainable development. Ecology and Society, 17(2), 9. doi:10.5751/ES-04780-170209

Jones, J. (1998). From globe to village: Understanding local social development. Social Development Issues, 21(1), 1-16.

Kiplagat, B., Sabitu, S., Thiagarajah, J., Smits, M., Smith, D., & Eavis, P. (2004). Conflict-sensitive approaches to development, humanitarian assistance and peacebuilding: Resource pack. Africa Peace Forum, Center for Conflict Resolution, Consortium of Humanitarian Agencies, Forum on Early Warning and Early Response, International Alert, Saferworld. Retrieved from http://test.alertinternational.co.uk/node/86

Kriesberg, L. (2003). Constructive conflicts: From escalation to resolution (2nd ed.). Oxford, UK: Rowman & Littlefield Publishers.

Lachapelle, P. (2008). A sense of ownership in community development: Understanding the potential for participation in community planning efforts. Community Development: Journal of the Community Development Society, 39(2), 52-59.

Lederach, J. P. (1995). Preparing for peace: Conflict transformation across cultures. Syracuse, CA: Syracuse University Press.

Lederach, J. P. (2003). The little book of conflict transformation. Intercourse, PA: Good Books.

Li, Y., Zhu, Z., & Gerard, C. (2012). Learning from conflict resolution: An opportunity to systems thinking. Systems Research and Behavioral Science, 29, 209-220.

Mac Ginty, R., & Williams, A. (2009). Conflict and development. New York, NY: Routledge.

MacKay, F. (2002). Mining in Suriname: Multinationals, the state and the Maroon community of Nieuw Koffiekamp. In Zarsky, L. (Ed.), Human rights and the environment: Conflicts and norms in a globalizing world (pp. 57-78). London: Earthscan Press.

Maslow, A. H. (1954). Motivation and personality. Reading, UK: Addison-Wesley Publishing Company.

McGee, G., Cullen, A., & Gunton, T. (2010). A new model for sustainable development: A case study of the Great Bear Rainforest regional plan. Environment, Development and Sustainability, 12(5), 745-762.

Msukwa, C., & Taylor, D. (2011). Why can't development be managed more like a funeral? Challenging participatory practices. Development in Practice, 21(1), 59-72.

Mulgan, G., Tucker, S., Ali, R., & Sanders, B. (2007). Social innovation. Retrieved from http://www.sbs.ox.ac.uk/centres/skoll/research/Documents/Social%20Innovation.pdf

O'Brien, C. (2007). Integrated community development/conflict resolution strategies as 'peace building potential' in South Africa and Northern Ireland. Community Development Journal, 42(1), 114-130. doi:10.1093/cdj/bsi068

Oishi, M. (1995). Conflict resolution and development: A case study of domestic development and related conflicts in Malaysia. (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. U072199)

Papaioannou, T. (2011). Technological innovation, global justice and politics of development. Progress in Development Studies, 11(4), 321-338.

Parsons, T. (2003). The functional prerequisites of social systems. In P. Kivisto, Social theory: Roots and branches: Readings (2nd ed., pp.188-193). Belmont, CA: Roxbury Publishing Company.

Plantprop. (2003). Greenstone belt gold mining regional environmental assessment. Paramaribo, Suriname: National Institute or Environment and Development in Suriname.

Poetisi, I. (2008, October 25). Veiligheidsdients IamGold hakt in op porknokkers. De Ware Tijd Newspaper. Retrieved from http://www.dwtonline.com

Redjokromo, M. (2005, September 12). Sociale Projecten Rosebel werpen vruchten af. De Ware Tijd Newspaper. Retrieved from http://www.dwtonline.com

Ritzer, G. (2008). Sociological theory (7th ed.). New York, NY: McGraw-Hill.

Ruth-Heffelbower, D. (2002). Local capacities for peace meets conflict resolution practice. Journal of Peacebuilding and Development, 1(1), 85-97.

Schwarz, R. M. (2002). The skilled facilitator: A comprehensive resource for consultants, facilitators, managers, trainers, and coaches (2nd ed.). San Francisco, CA: Jossey-Bass.

Sharoni, S. (1996, August). Rethinking conflict resolution: Historical overview, contemporary trends and new directions. Paper presented at the Fourth Annual Seminar of the International University of People's Institutions for Peace. Rovereto, Italy.

Simpson, R., & Gill, R. (2007). Design for development: A review of emerging methodologies. Development in Practice, 17(2), 220-230.

Smith, G. (2012). Conflict resolutie: Een methode ter onderhandeling van het Surinaams grondenrechten vraagstuk. Manuscript submitted for publication.

Sutz, J., & Arocena, R. (2006). Integrating innovation policies with social policies: A strategy to embed science and technology into the development process. IDRC Innovation, Policy and Science Program Area, Strategic Commissioned Paper. Retrieved from http://idl-bnc.idrc.ca/dspace/bitstream/10625/33061/1/124734.pdf

United Nations. (1987, April). Report of the World Commission on Environment and
    Development: Our common future. Retrieved from http://www.un-documents.net/wced-
    ocf.htm

Uvin, P. (2002). The development/peacebuilding nexus: A typology and history of changing
    paradigms. Journal of Peacebuilding and Development, 1(1), 5-24.

World Wildlife Fund Guianas & Ministry of Natural Resources Suriname. (2011). Transforming
    the small-scale goldmining sector. Conference proceedings. Paramaribo, Suriname: World
    Wildlife Fund.

Wehr, P. (1979). Conflict regulation. Boulder, CO: Westview Press.

Willis, J. W. (2007). Foundations of qualitative research: Interpretive and critical approaches.
    London, UK: Sage Publications.

Zelizer, C. (Ed.). (2013). Integrated peacebuilding: Integrated approaches to transforming
    conflict. Boulder, CO: Westview Press.