

The Missing Mismatch: A case study of Panama's Public Security Systems Issues using the Agent-Based Approach (ABA)

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ABSTRACT: A booming economy, a weak judicial system, and institutionalized corruption are the perfect match of circumstances that attract transnational organized crime into Panamanian territory. These organizations make collaborations with local gangs to transport drugs, increasing the associated number of violent crimes. This case study will express an understanding of the issues in Panama's Public Security system, using Systems Thinking and DSRP (Distinction, Systems, Relationships, and Perspectives) rules, while presenting findings and recommendations for future public security policy and strategies after the application of the ABA (Agent-Based Approach) method.

Keywords: Public Security | Systems Thinking | Perspectives | Crime | Statistics

Cite this paper: Angel Ortega (2022) The Missing Mismatch: A case study of Panama's Public Security Systems Issues using the Agent-Based Approach (ABA) *Journal of Systems Thinking*. (22) 5.

Introduction

THE REPUBLIC OF PANAMA (hereinafter referred to as Panama) is a small country of 75,517 square kilometers in Central America with approximately 4.2 million inhabitants¹.

¹ The Economist, Intelligence Unit: Panama, , 2022

The highly-developed services sector, the use of the U.S. dollar, the banking and insurance industry operations at its capital city, the ports, and the special tax-free trade zones have accompanied the expansion of the Panama Canal to create a Gross Domestic Product (hereinafter referred as GDP) for the country of 66 US Billion dollars, with USD 15,833 as GDP per Capita. A large GDP for such a small population in comparison with other countries in the region².

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Panama's long-standing insecurity issues

PANAMA'S BIGGEST STRENGTHS, its geographic position, and booming economy are also Panama's main weaknesses.

Today, as with pirates and the Spanish Crown hundreds of years ago, this geographic position also serves as a key transit point for illicit trade and as a refuge and negotiating area for the criminal organization that operates in the region. These criminal organizations are also attracted to its booming economy, weak judicial system, and institutional corruption. All of these, allow transnational networks

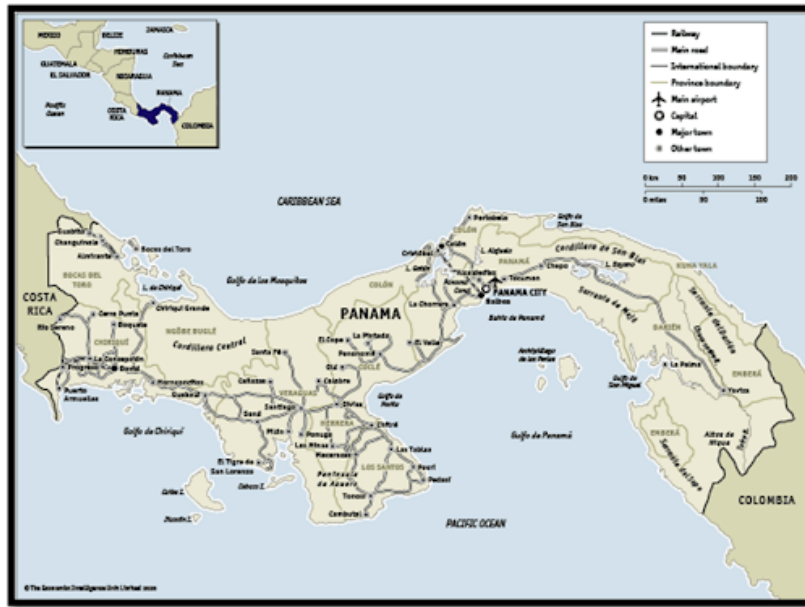


Figure 1: The Economist Intelligence Unit. Picture. Map of Panama and location in between Central and South America.

to make inroads in the country, making collaborations with local gangs to transport drugs, and with it, raising the statistics of violent crimes³.

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In addition to this weakness, the booming economy is far from being evenly or fairly distributed among the population.

Panama is still one of the most unequal countries in the world, according to the GINI index and data from the World Bank. Only surpassed in the region by Brazil and Honduras⁴. This condition not only increases social disparities that keep part of the population in vulnerable situations but also generates a youth population, that being unemployed, resort to committing crimes against the economic order such as armed robbery or thefts for the economic sustain of their families. This is also the same sector of the population that is exploited by the tentacles of organized crime to work in the streets⁵.

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Now, who is in charge of the Public Security of Panama?

FROM A WEAK CIVILIAN “National Police” in the 1910s to a later semi-militarized “National Guard” in the 1950s, evolving to a heavily militarized “Defense Forces” in the 1970s and 1980s that supported the military dictatorship. The latter ended after the US Military Invasion took out Dictator Noriega and destroyed the Defense Forces in 1989, sadly taking many lives in the process. After that, the Public Security returned to be named “National Police” composed of sworn

officers but under the command of the civil power legitimately elected in general elections⁶. At the present, the Ministry of Public Security of Panama is the Government Institution in charge of the Public Security of the country, in accordance with the Law 15 of April 14th of 2010, which is the law that created this Agency.

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Figure 2: Telemetro. Picture. In the image, the main building of the headquarters of the Ministry of Public Security, in Ancon, Panama City, Panama.

According to Article 1 of the aforementioned law, the mission of the Ministry of Public Security is to determine the security policies of the country and to plan, coordinate and support the efforts of the security and intelligence entities that make up this Ministry. At its operational level, it comprises the National Police, the National Aeronaval Service, the National Border Service, and the National Migration Service⁷

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Panama's Crime Statistics

IN TERMS OF PUBLIC SECURITY, there will always be two or more perspectives, those of the authorities and those of the population, at least. From the perspective of the authorities, the Ministry of Public Security - and the Security Services at their operational level - measure their own success according to whether they go up or down in the number of crimes committed in comparison with previous years, mainly measuring high-impact crimes such as homicide, armed robbery, theft, and others.

In addition, they measure their success according to the number of police arrests, raids, drug seizures, and police operations carried out. In that sense, we found statistics from the Directorate of Integrated Criminal Statistics Systems, which reflected an increase in the Homicides numbers in the early years of the Ministry of Public Security (since



Figure 3: La Prensa Panama. Image. Picture of members and vehicles of the National Aeronaval Service supporting quarantine measures taken by the National Police. Panama City, Panama.

2010) and the consequent decrease in the following years⁸. Although 2020, and even more 2021 has seen a rise again.

By 2020 there was a raise in homicide crimes, registering 500 homicides, and even a further increase to 554 cases in 2021, according to statistics from the Public Ministry -National Prosecution Office-⁹.

In other scenarios, the drug seizures have been increasing since 2010 when the total numbers were about 54 tons of drug seized, in 2018 they were 72 tons and in 2019 they were 82 tons of drugs seized¹⁰. Among the numbers of police arrests, just in 3 months of 2019, they were over 16,000 arrests, and the number of operations as raids and police checkpoints has been increasing parallel to the number of arrests in the last 10 years.

However, from the perspectives of the population, and using the same way to measure the success that the Ministry of Public Security has been using -the crime statistics- the number of common crimes – or low impact crimes- has been in constant growth in the last 10 years, independently of the number of homicides. Some figures even indicate that the numbers of common crimes like armed robberies, theft, and bribery have tripled.

In 2017, the National Survey of Victimization and Perception of Citizen Security 2017, a program with the Cooperation of the European Union and the United Nations Organization on Drugs and Crime reported 630,739 crimes are committed annually in Panama. That is, 1.2 crimes per minute¹¹.

The same survey shows that compared to the figures with which the authorities work, there is a large percentage of crimes that citizens

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Figure 4: Ministry of Public Security. Graph. A statistical comparison of the number of homicides from 2004 to 2018.

do not report, known as “hidden figures”, on which it can be inferred that the perception of insecurity suffered by the population is much higher than what the authorities perceive. According to those “hidden figures” the bribery crimes, thefts, scams, armed robbery and others, could actually be more than 100 times the amount reflected on the Criminal Statistics that the Ministry and its Security Services are working with for the planning and implementation of Security Operations.



Figure 5: SECOPA. Graph. The graph shows low impact crimes like bribery, thefts, threats and frauds as the most common crimes, with hidden figures being more than 100% than the number of cases reported by population for each of those crimes.

Methods

Why an Agent Based Approach (ABA)?

THE AGENT-BASED APPROACH (from now on ABA) method was used in this case study¹². The ABA method is made up of three steps: (i) the DSRP analysis of the system, (ii) the CAS and POSIWID analysis, and (iii) making the rubric and recommendations.

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But first thing first, why do we use this method?

We must recognize first that the case in study, the Public Security System in Panama, is a “*Wicked Problem*” which, according to Professors Derek and Laura Cabrera means it has 5 inherent characteristics¹³₁₃

1. **It is not formulaic:** It can't be solved by a single solution. In this case placing more police officers on the streets or increasing the time of imprisonment for crimes under the Criminal Law will not solve the problem.
2. **It has fuzzy boundaries:** The problem is interconnected with other problems. As mentioned above, one common solution is to increase the imprisonment time. This is a solution that legislators often seek. This creates another problem: prisons are overcrowded. Without resocialization programs, the prisons are “crime universities”.
3. **It is intractable:** the problem can't always be solved, but we can try to ameliorate its effects. Panama can't geographically move to a place where is not a transit point for transnational crime networks, however, we can try to ameliorate the effects of those networks in the territory.
4. **It has human costs:** From the victims of a crime, to the public agents trying to keep the streets safe, to the judicial agents trying to apply the rule of law, and passing through many other people, the human cost is obvious and we need to be adaptive and responsible when trying to solve this issue.
5. **It involves multiple perspectives:** The problem is viewed from different perspectives: the institutions involved, the level of the authority watching the problem, the population itself, and the problems caused by trying to solve it.

The “Wicked Problem” of Public Security and Systems Thinking: CAS, Mental Model and DSRP

As a “WICKED PROBLEM”, Public Security is also a CAS, which means, it is a Complex Adaptive System. Public Security issues are not “solvable” once and for all; it is something that is complex and in constant movement and adaptation. “Adaptive systems” means that it is a system (the mixture of two or more related parts) that have different responses to the same stimulus. A CAS has different parts simultaneously interacting, called agents, and those agents are acting through simple rules in the system¹⁴.

¹⁴ 12

The CAS we face are present in the political, social, economic, environmental, personal and many other areas. Mental models, on the other hand, are preconceived concepts that we have about anything. It is the different beliefs, facts, concepts and assumptions that we are constantly developing in our minds to make sense of the world around us. Even when we are not aware of it, we are creating or reinforcing those mental models.

If we are constantly adapting our mental model by using the feedback from the world around us, then we may have a “closer to reality” mental model. On the contrary, if we often try to adjust the world to our mental model without taking into consideration the feedback from it, then we are not making any progress on the path toward understanding complex situations, much less solving them.

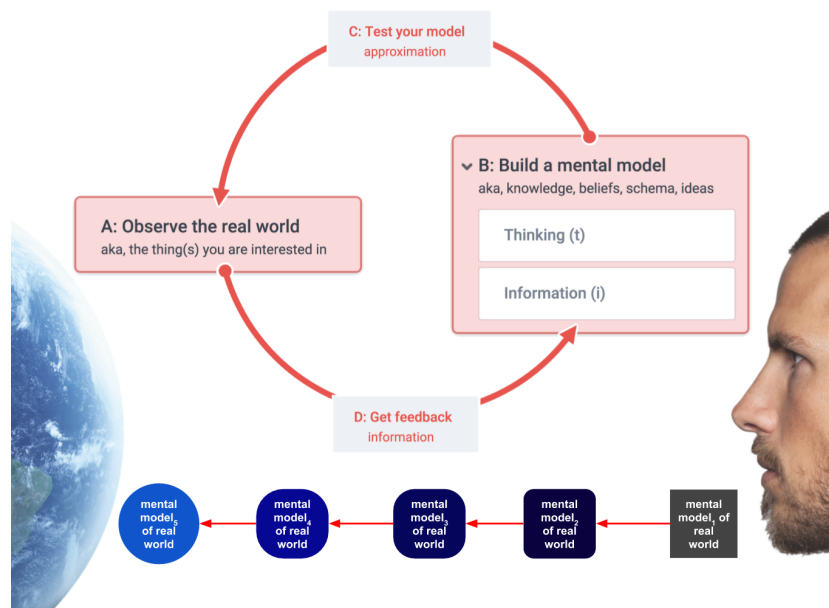


Figure 6: ST Loop, or Systems Thinking loop.

But here is the good news, Systems Thinking (hereinafter often referred as ST) is this amazing line of study that attempts to understand how to think better about the wicked, real-world problems we face.

ST is not the process, but the outcome that is produced after the awareness of the inputs we use to create our mental models.

ST explains that all mental models are composed of structured-information content. This means, the information or feedback we receive from our interactions with the world are structured through cognitive rules that we use to make sense of that information. These cognitive rules are also the inputs we should focus on when trying to formulate new knowledge¹⁵.

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These rules are the simple rules of Systems Thinking: Distinctions, Systems, Relationships and Perspectives -also known as DSRP.

Now the question is, how can we pragmatically use Systems Thinking to better approach the Public Security issues?

The Agents Based Approach (ABA) as the stepwise approach to better understand the CAS of the Public Security issues in Panama.

According to Myluono, Sukbaatar and Cabrera's "'Hard" and "Soft" Methods in Complex Adaptive Systems (CAS) Agent Based Modeling and the Agent Based Approach", we can use the Agents Base Systems Thinking approach, as a stepwise process to think about complex adaptive systems with the end goal of coming to some recommendations that will help change the system from its current undesirable state to a some future, more desirable, state¹⁶. In simple words, ABA approach is a way to understand the system, and it requires two prerequisites: 1. Understanding of the DSRP rules as the structure of the information we receive in our mental models and 2. An understanding of CAS as autonomous agents following simple rules.

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Why ABA and not ABM for this case study?

ABM or Agent Based Modeling provides a methodology to model a CAS, however despite being useful, it brings many difficulties at the moment of being applied and there are a limited number of situations where it can actually be of use¹⁷.

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- Firstly, not all CAS can be modeled through a computer program, due to the lack of necessary data. As you can imagine there is an evident lack of data for the CAS at hand.
- Second, the system we are studying is too complex to be able to define and introduce all the variables in the software.
- Third, not everyone will have the coding competency to be able to use this model. With so many variables in this complex system,

including the lack of data, it will be less than useful to start coding on this CAS.

- The CAS we are studying is too complex to be able to have only one paradigm to be solved.

Steps to an Agent Based Approach (ABA)

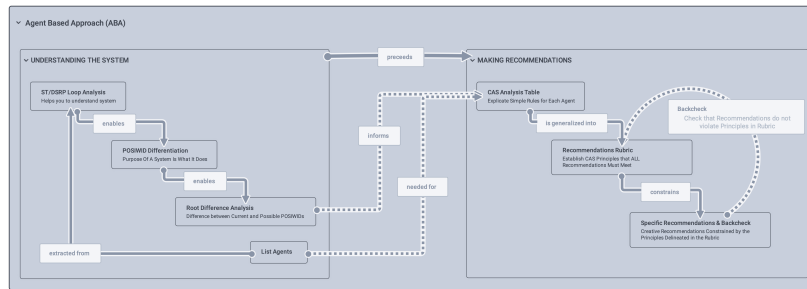


Figure 7: Steps to an ABA

Step 1: DSRP Analysis of the System

THE FIRST STEP involves “Understanding Mapping the System/Environment” and utilizes systems thinking/DSRP¹⁸ and systems mapping¹⁹.

Systems thinking/DSRP entails that you can distinct elements from each other: anything can be an identity or an other (Distinctions or D), you can group them into wholes or separate them into parts (Systems or S), you can relate every element and even identify the relationships between themselves, anything can be an action or reaction (Relationships or R), and you can change the perspective from where you are looking at an element, distinction, idea, relationship, a part or the whole; everything can be a point or a view of a perspective (Perspectives or P).

People are constantly doing DSRP thinking without being aware of it, so this is the trick. You must practice the metacognition process of thinking about your thinking, to understand complex systems.

This DSRP structure can use a Mapping Method, to provide the “systems thinker” with the necessary tools to do a “stepwise process” in order to do an analysis on each of the “cards” on the map, that inherently relates it parts and makes perceptions, distinctions and relationships among each other²⁰.

For this DSRP analysis of the system we should also bear in mind the premise 1. “stop trying to solve the problem, instead try to understand the system”. This section involves thorough analysis

D-S-R-P

Figure 8: DSRP structure. Distinctions, Systems, Relationships and Perspectives.

of the DSRP structure of the system, while answering questions regarding the same DSRP to “generate a mental model of the system”):

Some questions for this elaboration of mental model may be:

- *What are the distinctions I’m making?*
- *What are the salient parts?*
- *What relationships among parts I’m not seeing?*
- *What different perspectives could I take to better understand the system?*

Step 2: POSIWID and CAS Analysis

THE SECOND STEP IS “Exploring Current and Future System States” and involves two analyses: POSIWID (Beer, 2022) and CAS²¹.

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This step²² refers to the POSIWID of the system as it is, and the POSIWID of the system as it should be, in order to compare and contrast these two, looking for structural differences. Mr. Stafford Beer developed the term POSIWID by the acronym of the “Purpose of a System Is What It Does”²³.

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We now should focus on questions like:

- *What’s the system’s purpose?*
- *What’s the system behavior?*
- *What does the behavior say about the system’s purposes?*
- *Is there an alignment between the actual and ostensible purpose?*

According to the previously mentioned authors, the value of POSIWID thinking is that it flips the system and its purposes on its head. The worse the result, the clearer the value of POSIWID thinking: the system is “brilliantly designed at bringing about a bad outcome²⁴”. So, let’s try following this concept:

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1. Identify a system that you think is falling or isn't working well enough.
2. Describe the specific results of the failure.
3. Turn the descriptions on its head with POSIWID.

This step will also benefit from a Root Difference Analysis, which means that the systems thinker should develop a statement of the system's actual POSIWID and another for the system's "should-be-POSIWID". The future POSIWID -also known as the should-be-POSIWID - is what the system should do after the changes we propose as Systems Thinkers²⁵.

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Following the POSIWID Analysis, we should do a CAS Analysis. The next step in the ABA approach is to first make a list of the agents that intervene in the system -use the distinctions in the DSRP analysis of the previous section- and then identify the simple rules that those agents follow. The CAS Analysis makes a stance in delivering the knowledge that each agent in the system is following a set of simple rules in their interactions with each other²⁶. According to Cabrera Cabrera, either the agents or their simple rules need to be changed/addressed in order for the systems to change and evolve from current POSIWID to desired/future POSIWID²⁷.

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To make the list of agents, identify their simple rules, and understand what each agent is doing in the system (emergent property) we can use the following CAS Table:

Agents	Simple Rules	Emergent Property

Table 1: Structure of CAS Analysis

Step 3: Rubric and Recommendations

THE THIRD AND FINAL STEP is about designing a "rubric of recommendations" and after it, creating a set of specific recommendations²⁸. The rubric will act as the guiding principles for the set of recommendations we will offer after understanding the system with the previous two steps. Then, once the rubric is designed we can go and create a set of recommendations that can be anything and everything we want, as long as it fulfills the criteria of the rubric, which will act as the only constraint for the wild imagination of recommendations we may offer.

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The following table can be used to make the list of recommendations.

Recommendation	Is it allowed by the rubric?	Feedback for the recommendation

Table 2: Structure of Recommendations Table

Results

DSRP Analysis of the System

AFTER RUNNING SEVERAL ST Loop iterations of the issue - meaning confronting our knowledge with reality and feeding our understanding of the system using Plectica Mapping - and using the research provided in this paper, we arrived at this “Systems Map”: What does Insecurity in Panama involves?

DSRP: Public Forces Involved, Other National Agencies, Public Ministry, Judicial System and Prison System, all of them with salient parts and relationships among them, and finally all of them feeding back the Insecurity Data (Statistics about crimes) used as the starting point for the perceived success from the authority in their year-to-year reports.

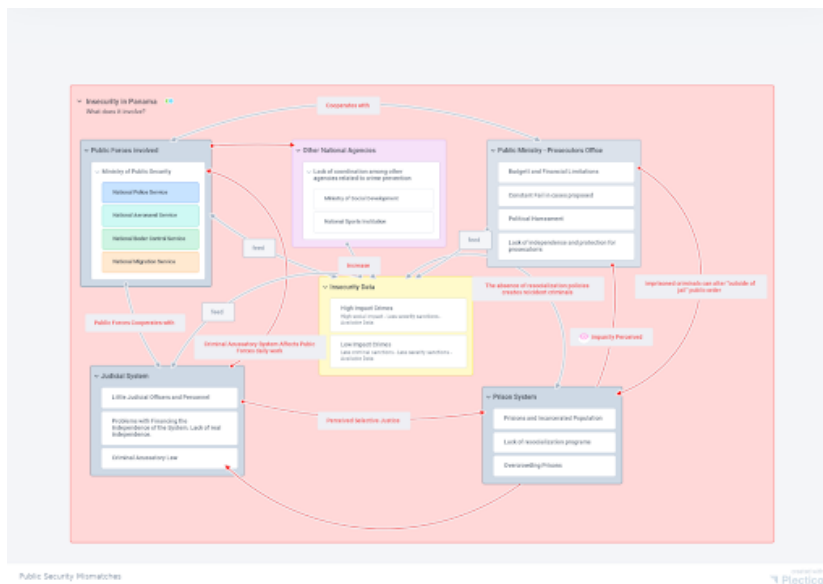


Figure 9: Plectica Map. Public Security Mismatches. P-Party Cognitive Jig with RDS. What does Insecurity in Panama involve?

Inside this same step, we should also “Interrogate our mental model of the system with the DSRP”. Some questions we can use in this part are:

- Distinguishing:
 - Are my distinctions necessary/sufficient?

- * For the understanding of the general/broad system of Public Security in Panama they are necessary and sufficient, although there are still some distinctions to be made, specifically about the perspective of the main agents.
- From what perspective?
 - * Interested citizen.
- Systematizing:
 - How are things organized into part-whole groupings systems?
 - * Distinctions, including part-wholes groupings, are organized according to the agents of the public security system in Panama. The perspective used is the one of a citizen.
- Relating:
 - Parts have been sufficiently related?
 - * There can still be made more relationships and more systematized relationships but the main issue about the perspective from which the authorities see the problem is still missing.
- Perspectivizing:
 - What perspective is the whole system from?
 - * Whole perspective is from the Constitutional framework. Public Security services, Public Ministry, Judicial System, they are all part of the Panamanian National Constitution and thus, lawful organizations behind the Public Security Policy scenario.
 - Are there missing perspectives that would provide insight?
 - * Yes. The perspective from the population and perspective from authorities are missing.

After solving these questions, the ABA approach recommends us to test our mental model and evolve it using DSRP to better fit reality.

Following these instructions, (i) adding the solutions of the answers (ii) answering some structural predictions to the map, (iii) asking for feedback for iterations, (iv) improving the relationships and (v) identifying the missing perspectives the new Map look like this:

The new map contains 6 main *dio* (distinctions of identity) with 5 agents (which can be reduced to 2 opposite perspectives), 7 *spw* (part-whole systems, with 20 parts) 15 relationships (of which 3 are *rar*, relationships of actions that cause reactions) and 2 main *ppv* (perspectives with a point and a view).

The main agents in the map are the public forces involved according to the constitution: the National Police Service, the National Aeronaval

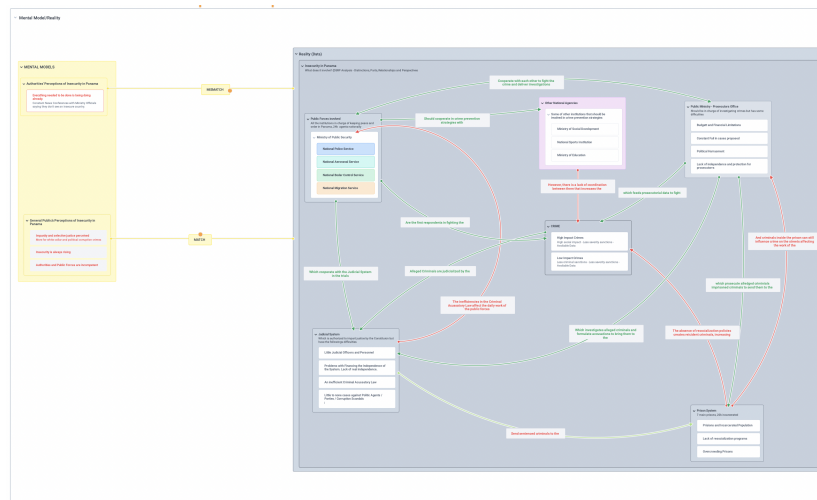


Figure 10: Plectica Map. Public Security Mismatches. P-Party Cognitive Jig with RDS. 5th iteration. What does Insecurity in Panama involve?

Service, the National Border Control Service and the National Migration Service. Working with them, at least from the perspective of the Constitution, are the Judicial System and the Public Ministry. The cooperation between the former two, brings in the Prison System into play. Additional national and local institutions should provide guidance to prevent crime. Crime statistics are brought by the interaction -or lack- of all the agents mentioned. Relationships among the agents in the system and the perspectives from the authorities versus the perspective of the population are also shown.

Perception of insecurity from Authorities reflects the perspective of the authorities and their mental model assumption that everything is going according to some plan they know about.

Perception of insecurity from Population reflects the perspective of the people, and their mental model assumption that authorities and Public Forces in particular (security services) are incompetent, that the insecurity is always rising, and that the judicial system is applying selective justice, defending the rich and the politicians (impunity perceived).

POSIWID Analysis

THE POSIWID ANALYSIS includes first determining the POSIWID of the system, and later the differentiation of the root of this POSIWID with the desired POSIWID.

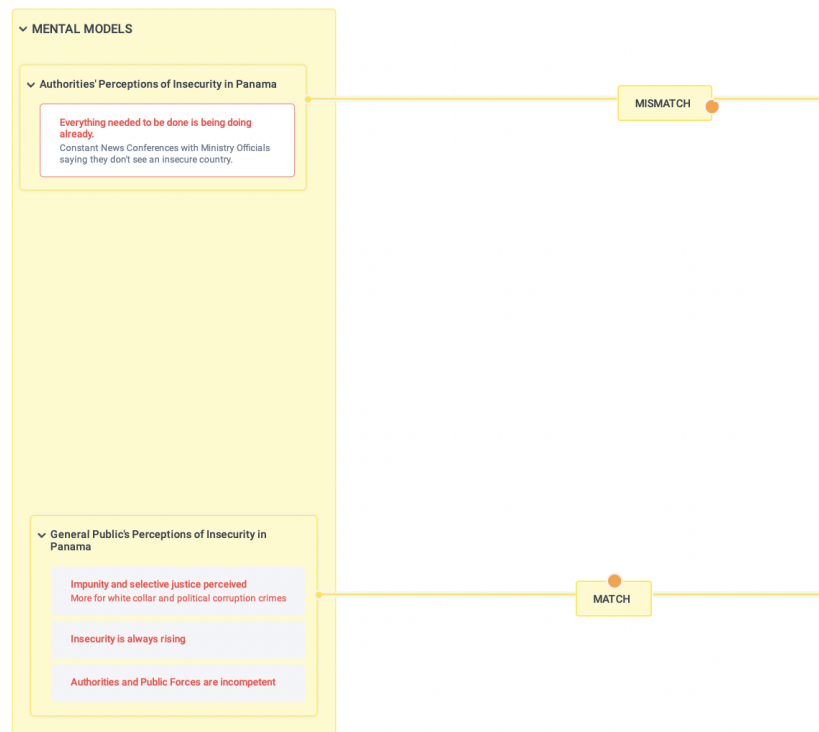


Figure 11: Plectica Map. Public Security Mismatches. 5th iteration. What does Insecurity in Panama involve? Perspectives in the system.

POSIWID Differentiation

According to Myluono, Sukbaatar and Cabrera, the next step into an ABA approach is the POSIWID of the system as it is, and the POSIWID of the system as it should be, in order to compare and contrast these two, looking for structural differences. Mr. Stafford Beer developed the term POSIWID by the acronym of the “Purpose of a System Is What It Does”²⁹.

²⁹ 12

We now should focus on questions like:

- What’s the system’s purpose?
 - According to Law 15 of 2010, the Ministry of Public Security should coordinate efforts with Security services to ensure public order and to determine the Security Policies of the country. Public Security should have the purpose of maintaining public safety against any unlawful activity.
- What’s the system behavior?
 - Uncoordinated efforts from institutions in the crime prevention agenda. Authorities are in denial of previous administration efforts to sustain public security, and are in constant denial

of the reality that to counter organized crime there is more to do than just increasing the budget to the Security Services operations.

- What does the behavior say about the system's purposes?
 - It will not be achieved if some arrangements are not made.
- Is there an alignment between the actual and ostensible purpose?
 - There is no alignment. Today's purposes are often reflected in short-term political agendas and there is no Public Security National Strategy or Policy to be followed through administrations.

According to the previously mentioned authors, the value of POSIWID thinking is that it flips the system and its purposes on its head. The worse the result, the clearer the value of POSIWID thinking: the system is “brilliantly designed at bringing about a bad outcome³⁰”. So, let's try:

³⁰ 12

Identify a system that you think is falling or isn't working well enough	Describe the specific results of the failure	Turn the descriptions on its head with POSIWID
Panama's Public Security System.	Raising the number of high impact and low impact crimes.	The Panama's Public Security System is extremely helpful in raising the number of homicides, thefts, armed robbery and several other crimes in the country.

Table 3: POSIWID Analysis

Root Difference Analysis

IN THIS STEP, the systems thinker should develop a statement of the system's actual POSIWID and another for the system's “should-be-POSIWID”. The future POSIWID is what the system should do after the changes we propose as Systems Thinkers³¹. The desired POSIWID is one by which the authorities reflect interest in fighting crime, in all its stages: prevention, repression and resocialization, through a coordinated effort among institutions, other than the Security Services, counting with a strong judicial system, and with a detailed Public Security National Strategy that can transcend one Government administration to the next one.

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Thus, the main difference is the temporality or not of the purpose of the system. Short-term or long-term political perspective around Public Security issues in Panama can heavily influence the results and crime statistics.

CAS Analysis

THE NEXT STEP in the ABA approach is to identify the agents of the system - we use the distinctions made in the DSRP analysis - and identify the simple rules that those agents follow.

The Public Security in Panama is a CAS as we have already expressed. This means it is a Complex Adaptive System where agents follow a set of simple rules and with it the emergent outcome of their respective thinking. Let's elaborate in a table:

Agents	Simple Rules	Emergent Properties
Authorities	1. Unprepared leadership with small knowledge on how to set national policies for many areas of the State. 2. Set self-interest political strategies.	Mismatch between the Reality of the insecurity data and what the authorities think they are doing to address it. Authorities are living in their own echo-chamber of short-term political races of 5 years each.
Population	1. Live in hope for a safer country (high expectations). 2. Live in fear for an insecure country. 3. A minimum amount is pushed to crime due to economic reasons. 4. Distrust everything from the Government but still select the same traditional political parties.	Fear of insecurity but distrusting the government efforts, thus perception of (i) nothing done by authorities and (ii) high impunity in the Judicial System for politicians and people with money. Raise in crimes due to socioeconomic reasons. Selecting the same politicians in general elections and starting the cycle again.
Ministry of Public Security and the Security Services	1. Set Public Security Policies according to Political Authorities. 2. Coordinate efforts to tackle crime. 3. Every 5 years all the head rankings are changed.	Mismatch between what should be done and what they are ordered to do by Politicians. Discontinuation of Public Security strategies from previous directors.
Other National Agencies	Minding their own agendas, not really related to public security.	Discoordination among national agencies to fulfill the Crime Prevention area.
Judicial System	1. Apply the rule of law to all the judicial cases. 2. Suffer influence in their decisions by Politicians.	Creates a perception from the population of a selective justice and impunity to white collar crimes and crimes committed by politicians.

Table 4: CAS Analysis Table. Public Security System in Panama.

Rubric and Recommendations

THIS STEP in the ABA approach expresses that the final recommendations the System Thinker is going to present, should be tested against a set of recommendation principles. These principles should not be violated in order to be of consistency with the work of understanding

the system and making recommendations.

Recommendation Rubric

For the purpose of the Public Security System, we propose the following recommendations:

1. Any recommendations cannot maintain, reinforce or engender the status quo.
2. Any recommendations should not be contrary to each other.
3. Any recommendations must be borne of individual actions that lead to the desired emergent property and should-be-POSIWID.
4. Any recommendation may not be understood as definitive, and will need constant feedback for adjustment.

Specific Recommendations

THE RECOMMENDATIONS can be creative but should adhere to the recommendation principles determined in the previous section.

1. **Intervention/Recommendation 1:** The main recommendation we propose is to alter the mental model of the authorities about the Public Security System in Panama by doing just two simple rules: (1) increase self-critic ability in leadership and (2) rely on data, with verifiable collective methods of data, for the public policies in Public Security.
 - (a) **Feedback:** This recommendation follows up every recommendation rubric, essentially not maintaining nor reinforcing the status quo.
2. **Intervention/Recommendation 2:** Once accepted the previous two simple rules, there are other recommendations like: (1) The creation and promotion of a National Public Security Strategy by an interinstitutional effort led by the Ministry of Public Security, focused on i. Prevention, ii. Repression and, iii. Resocialization; taking into consideration the United Nations Sustainable Goals and a comprehensive and cohesive Criminological Policy (2) Constant relevance and maintenance of the goals, strategies and policies through different administrations.
 - (a) **Feedback:** This recommendation follows up every recommendation rubric, essentially the not maintaining nor reinforcing the status quo, borne by individual actions from agents and the

one with no definitive but in constant adjustment process of recommendation.

3. **Intervention/Recommendation 3:** Promotion of unified efforts among institutions, so the Ministry of Public Security can focus specifically on repression, and other national Agencies like the Ministry of Education, the Ministry of Social Development, the Ministry of Culture, The Panamanian Sports Institute can work in programs to help the prevention of crime in the youth population.

- (a) **Feedback:** This recommendation follows up every recommendation rubric, essentially the not maintaining nor reinforcing the status quo, borne by individual actions from agents and the one with no definitive but in constant adjustment process of recommendation.

Discussion

Systems/DSRP Analysis

BY MAPPING THE SYSTEM we were able to identify at least 6 agents actively involved in the public security system in Panama. These agents interact with each other in relationships that are useful or not to maintain the public safety of the country. Some relationships were identified in green on the map showing that in fact, the interaction is the result of the Constitutional mandate to act in a certain way. For instance, the services of the public force “should cooperate” with the Public Ministry to obtain the evidence for the trials of the alleged criminals; and together they both assist the Judicial System to seek the execution of the Criminal Action. Once the sentence is issued by the Judicial System, the condemned criminals should go to the prison system.

However, some other relationships or even the reaction to the actions made by agents of the system were identified in the color red, showing how these relationships are damaging to the system. For instance, once the Public Forces arrest someone for a crime, the Judicial System may let them run free or in absolutive decisions because there are many “loopholes” in the Accusatory Criminal Law of Panama. This element discourages Public Forces to act because they feel the law will not support them and the alleged criminals will mock them. Another negative relationship is the lack of cooperation between Public Forces and other National Agencies, which is different, the crime prevention agenda would kick-off, like with sports, educational, and or cultural institutions. Another

negative relationship is the lack of resocialization programs once the convicted criminals are compelled to stay in prison. This absence of a resocialization program only creates in the convicted a sense of lack of belonging to a functional society, and they become prompted to act on the opposite side of the law again.

Once the relationship among the agents was determined, the two main perspectives, the one from the authorities and the one from the population allowed us to see there is a mismatch between how they both perceive insecurity in the country. The population distrust every effort of the government, and the government authorities tend to “short-sight” their public security strategies into anything that may fit their political goals in their respective 5-years tenure, while also changing command in the Public Forces in fear of any military/police sublevation for their lack of transparency and absence of leadership.

This mismatch is what we consider is the main takeaway from the analysis of the system because it is impeding the agents of the system to cooperate in the way the wicked problem of public security demands.

POSIWID Analysis

THE POSIWID ANALYSIS was very helpful to determine the desired state of the system, and what should change in the system to achieve the desired purpose.

As we mentioned before The main difference between where the public security system’s purpose is and where it should be is the temporality of the decisions, the short-term or long-term of the political perspectives around Public Security issues in Panama.

The current or actual POSIWID is good at increasing the numbers of high and low impact crimes, while aiming to achieve a short-term political victory for the current government (and it happened for each administration in the past), and maintaining a minimum effort to fight crime in the political priority’s agenda. The current POSIWID is maintained through the “success” narrative of the authorities in their own terms. The heavy weight of the process is charged on the Security Services that in turn receive constant increases in their budget to fight crime, but still lacking Government-Directed coordinated efforts with other institutions in the Prevention of Crime Agenda and lastly, there is no Public Security National Strategy that lasts through different Government administrations.

The desired POSIWID is one that the authorities reflect interest in fighting crime, in all its stages: prevention, repression and resocialization,

through a coordinated effort among institutions, other than the Security Services, counting with a strong judicial system, and with a detailed Public Security National Strategy that can transcend one Government administration to the next one.

CAS Analysis

THE CAS ANALYSIS we made was important to determine the rules that the agents in the system follow in their interactions with each other, so the emergent behavior of the system is precisely the result of those interactions.

Thanks to the CAS Analysis we can show in a Plectica Map the main MISMATCH from the agent “Authorities” as a perception that is causing the emergent property of not being aware of the real issues in the Public Security System. This Mismatch between Authorities’ Mental Models and the Reality of the System is making the Authorities believe they are doing everything they should be doing. This Mismatch is also reinforced by:

- Political Reasons: Always the official political party wants to claim the reason and victory over complex situations other politicians couldn’t solve either.
- Unprepared leadership: the politicians running for elected official positions are more often than not, unprepared politicians, just in a high-ranking position due to political structures in their own political parties.
- Inefficient Public Administration: Political beneficiaries, campaigns supporters and personal friends of elected officials often end up in many, if not every, position at Government, with in addition to many cases of unprepared leadership causes a loop of echo-chamber just reinforcing their own mental model that every critic is an enemy, and that they are just better than any other political party.

Rubric and Recommendations

THE RECOMMENDATION RUBRIC in section 9 is pretty straightforward and the recommendations offered in section 10 were proven against the rubric in the column “feedback”.

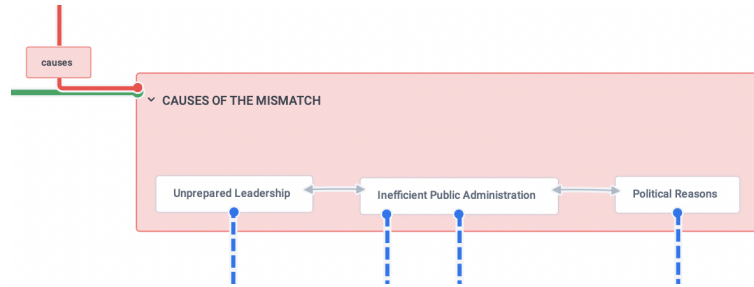


Figure 12: Plectica Map. Public Security Mismatches. 5th iteration. What does Insecurity in Panama involve? Root Causes using the CAS and POSIWID Analysis.

Specific Recommendations

THE MAIN RECOMMENDATION we found is to alter the mental model of authorities because of a preconceived idea that is creating a Mismatch with Panama's realities.

By doing an R-Channel (channel of relationships among two "wholes" in the system), and following the results of the CAS and POSIWID Analysis, we were able to reverse the root causes of the Mismatch to offer specific recommendations.

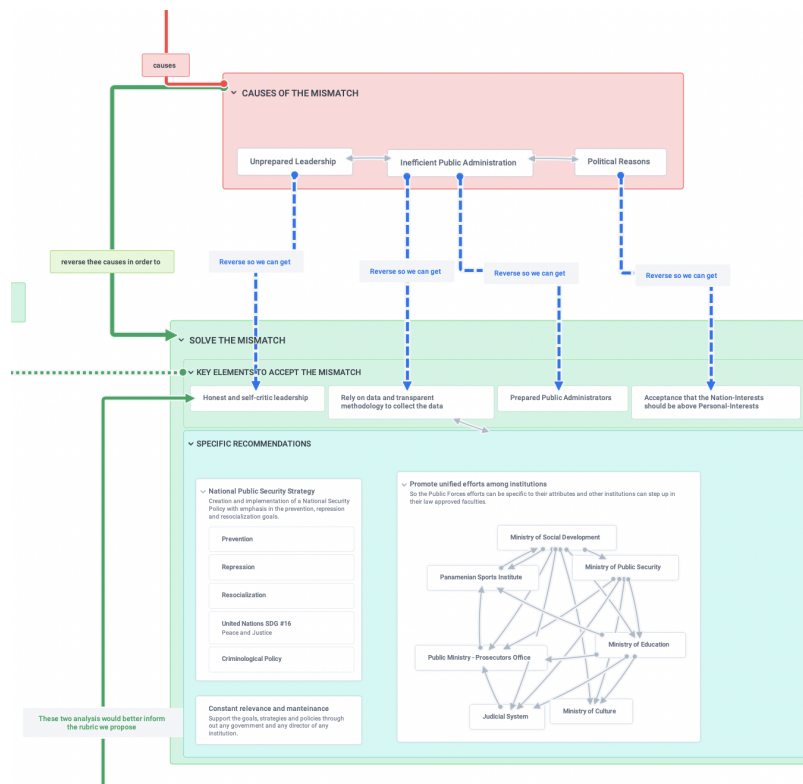


Figure 13: Plectica Map. Public Security Mismatches. 5th iteration. What does Insecurity in Panama involve? Specific recommendations offered, by reversing the root causes.

The “authorities” of the government in the system have enough political power to overcome technical decisions from career officers and with that, recreating a loop every 5 years of new Public Security Policies that are not influencing the Long-Standing issues around the Public Security System in Panama.

With this Mismatch, the efforts are not directed to the appropriate path to develop a National Public Security Strategy that can focus on prevention on the streets and resocialization in prisons as much as the budget is currently focused (on repression only). The efforts from other National Institutions on the prevention of crime agenda is vital (critical relationships) and there is no effort enough to change the game, that one single agent of the CAS can make, but we can start off by motivating and enforcing the willingness in the mental model of the public elected officials. They should be able to have better self-critic and self-assessment in their leadership ability and rely more on data at the moment of creating Public Security Policies.

Despite offering a set of comprehensive and long-lasting recommendations, the main recommendation we propose as System Thinkers, is for the authorities to have the willingness enough to accept the mismatch and then work the rest of the recommendations over it. This is not an easy task, and may require changing the agents of the system (public officials in charge) or the rules they follow, but is not impossible.

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