

City Doctors

A systemic approach to transform Colon City, Panama

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*“Reality is not divided into job functions,
departments, organizations, issues or laws”*
(Kaufman, 2006)

Just like their dwellers, cities can get sick.

When that happens, each citizen experiences multiple and dramatic symptoms affecting daily life: crime and insecurity, pollution, traffic jams, sanitary and waste management problems, air, water, damage and loss of property, property value, broken schools, ailing infrastructure, high taxes for poor quality services and quality of life in a seemingly endless sequence of calamities.

Treating symptoms, however, can be treacherous. Self-medication and turning to emergency rooms can end in even more dangerous treatment-borne complications, making the recovery more difficult and relapses more likely¹.

Adopting partial “solutions” that maximize a specific subsystem –being it tourism, housing, security or commerce- can create new, more complex and challenging problems².

Experience shows that building public housing without addressing unemployment, crime and security issues often ends with squatters living in “vertical slums” such as Chicago’s Cabrini-Green³.

A prosperous, money-making logistic hub can turn into a “container town” that blue and white collar employees flee for safer suburbs before darkness falls⁴.

Building walls to protect the business areas and highways to help commuters exit and access the city isolates poorer areas, creating ghettos –as in Robert Moses’ New York.⁵

¹ According to a 1981 study, approximately one-third of patients’ illnesses in a university hospital were caused by treatment. (Steel, German, Crescenzi, & Anderson, 1981) With approximately 225,000 deaths per year, treatment-caused, *iatrogenic*¹ factors are the third leading cause of death in the United States – following heart disease and cancer. (Starfield, 2000) (Landro, 2008) (Weingart, Ship, & Aronson, 2000)

² (Bernardez, Surviving “performance solutions”: aligning performance improvement interventions, 2009)

³ (Hunt, 2009) (Center for Urban Research and Policy Studies, University of Chicago, 1999)

⁴ (Florida, 2005)

⁵ (Caro, 1975)

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A careful review of the history of “magic bullets” for sick cities, such as public housing, employment subsidies, “zero tolerance” or ambitious urban or touristic “revival” initiatives shows a discouraging rate of failure, unintended consequences and conflict between different groups of interest pressing to speed up for a new, and equally specific solution.

Policies get mixed up with politics and vice versa, creating regulatory mazes that become a quagmire for reformers⁶.

And then, people get sick of the city and leaves.

Property values drop, unwanted settlers like squatters and criminals get in and business and investment gets out at ever more alarming rates⁷.

Landlords are replaced by slumlords and these soon evolve into drug lords, as drug economics find in the slum a strategically located safe haven and abundant cheap labor.

By then, the sick city has become also a “third rail” that every new administration tries to avoid, postponing solutions for cosmetic quick fixes.

It is usually a big event –such as Olympic Games, or land getting cheap enough to attract real estate speculation or a major social upheaval- that brings the sick city back to the spotlight.

By then, everybody is painfully aware that partial solutions and quick fixes will not do.

They have to find a doctor for the city that can unravel the maze of conflicting partial solutions and unlock the forces for change, aligning them towards a shared vision of the future all stakeholders want not for them, but for their children and grandchildren. This is the way every great city started in the first place.

In discussing the case of Colon City, Panama, and the approach we propose as a team of “city doctors”, we will show how a systemic, multi disciplinary and strategic plan can be developed and applied by a private-public consortium, the tools required and the lessons learned from what happened to Colon and the experience in other cities’ turnarounds.

From Belize to Baghdad: the fall and rise of Colon, Panama

Once the proud Atlantic gate of the Panama Canal and a vibrant logistics, commerce and touristic hub blessed with a mix of colonial buildings, a booming economy and a fast growing population⁸, Colon City experienced a slow but steady decline into disrepair that, at the beginning of the 21st century have transformed it into a “basket case” for urban crime and social conflict.

⁶ (Barr, 2000) (Lee, 2000)

⁷ (Sowell, Basic economics: a common sense guide to the economy, 2007) (Sowell, The housing boom and bust, 2009)

⁸ (Rowe & Gil Borges, 1924)

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In September 1977, when Panamanians proudly celebrated the transfer of the Canal and the reduction of US military presence few anticipated the problems that the closing of the basis will create in some regions.

In spite of being a painful reminder of foreign occupation and the anti-American rhetoric they inspired during the years the Panama Canal was controlled by the United States, US military bases provided steady, better paid and qualified jobs, higher quality schools and housing and a disciplined, controlled and safe environment to the population of Colon and other major cities.

The Panama Canal Authority (ACP), modeled after its American predecessor, is still considered the most efficient and organized department of the Panamanian government.

Although the town houses and school buildings remained, the new administrations proved unable to keep the quality of education, sanitation and security. International and local business operating the prosperous Free Zone built walls separating their business area from the rest of the city, and recruited their workforce outside Colon.

Unemployment rose to 40 % of the working age local population, helped by poor quality schools that could not provide the increasingly technical skills required for international commerce and logistics, and soon crime and drug trafficking –fueled by the strategic location, the lack of security and the inflow of money- became the jobs of choice for those who opted to stay.

By the turn of the 21st century, Colon had reduced by 60,000 its population, and the crime rate, at 40 deaths per 100,000 inhabitants doubled that of Panama City⁹. Tourism soon took a hit, with alarming stories of downtown shootings between gangs in broad daylight. Cruise ships started to ferry the tourist to the Free Zone in charter buses that cautiously avoided the colonial downtown.¹⁰

In the last stage of the decline, the old and picturesque colonial buildings started to be occupied by squatters, the street lights and windows disappeared and the streets of isla Manzanillo –once a proud colonial city that upper class Panamanians chose to spend their holidays became an intimidating labyrinth of vertical slums.

Politics stood once more in the way of policies, when opposition and incumbents politicized alternatively Colon's dire problems to short term political gain. As Colon problems grew in size and complexity, governments started to see them as a toxic "third rail" to avoid.

Business leaders opted for building walled communities protected by private security, creating a series of scattered "green zones" carved into the city that made circulation even more complex for those living outside them.

⁹ (Direccion de Estadística y Censo, Republica de Panama, 2007) (Instituto Nacional de Estadísticas y Censo de Panama - INEC, 2009)

¹⁰ (Contraloria General de la Republica de Panama, 2005) (Direccion de Estadística y Censo, Republica de Panama, 2007) (Parker, 2009)

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Solving “problems”: enter the specialists

*“War is too important a matter to be left to the military”
Georges Clemenceau (1841-1929)*

During 15 years, successive teams proposed plans to turnaround Colon to different administrations and business leaders that went systematically to a dead end. Plans typically addressed a specific part of Colon problems: rebuilding and remodeling the isla Manzanillo, promoting or creating tourism zones and hotels, expanding free zones, building new airports, repairing the electric grid and sanitation, remodeling schools, training locals to make them employable, relocating squatters, building public housing, putting more police on the streets, expanding the local prison, protecting and recovering the environment and so on.

Typically, each plan had a government or business sponsor, an advocate group champion and a team of specialists in the specific problem to be solved. Different groups lobbied for different, often competing partial solutions, jockeying for approval and funding and clashing frequently for priority.

This approach generated also roadblocks, since not only there was competition for resources, but clashing unintended consequences: relocating squatters and gangs would be resisted by the recipient communities and by advocates of public housing. The sole announcement of freeing the historic center of Colon would provoke a speculative jump of real estate value to the benefit of those owning the land and those with inside access, and so on.

Because each part of Colon’s woes –housing, labor, tourism, commerce, health, and education– belonged into a subsystem regulated by a department, ministry or authority of the government, partial solutions generated also “turf wars” over jurisdiction among different parts of government, further creating a stalemate.

Breaking the stalemate

As it often happens, a major deadline can create the conditions to break the stalemate over Colon: in 2012 Panama will inaugurate the first phase of the Canal expansion –which will double Panama’s revenues– and Colon will be not only logistically important, but on the international spotlight again.

The Panamanian Tourism Authority, Housing Ministry and the Presidency itself associated with Colon’s business and community leaders and hired an interdisciplinary team of “city doctors” to propose a plan to transform Colon for the period 2010-2014¹¹.

The plan for Colon should show tangible results to the entire country and to Colon’s citizens and visitors in particular in all the areas required to fully recover the city, building trust and commitment among all stakeholders.

¹¹ (Gobierno Nacional - Republica de Panama, 2009)

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Developing and measuring a shared vision for Colon

The new plan started with a needs assessment covering all areas and factors involved in Colon's problems and possible recovery. All major stakeholders –government, business, NGOs, dwellers and even gang leaders- participated in (a) defining *how Colon should be* and (b) identifying gaps between those results and the current reality.

A customized version of Roger Kaufman's *Minimal Ideal Vision*¹² was used as the starting point for several panels that came with the priorities and goals for all major strategic indicators described in Table 1.

The column Average priority shows the priority that a consensus of all stakeholders gave to each one of the strategic indicators, defining measurable goals for the transformation and future of Colon.

Table 1: Colon transformation – Strategic indicators

Strategic indicator / Factor	Average
• Residents and visitors are safe	2
• Everyone who lives in Colon wants everyone to be safe and businesses thriving	5
• The infrastructure of Colon is sufficient for growth	6
• The elected officials are committed to a new, safe and thriving Colon	3
• The quality of life in Colon is good	3
• Current businesses in Colon care about the City	5
• Education in Colon is preparing future citizens properly	1.5
• Gangs are not active in Colon	3
• New businesses are coming to Colon	4
• Businesses are thriving	
• Residents see a hopeful new Colon	
• The rest of Panama cares about Colon	
• Residents in Colon see a good future for themselves and their families	
• Buildings in Colon are safe and attractive	

Vision priorities were translated into measurable strategic goals for the 2010-2014 period validated by all stakeholders and aligned with government strategic plans¹³:

1. Security:
 - a. Reduce crime rates to Panama level by 2011
 - b. Eliminate gang activities

¹² (Kaufman, Educational System Planning, 1972)

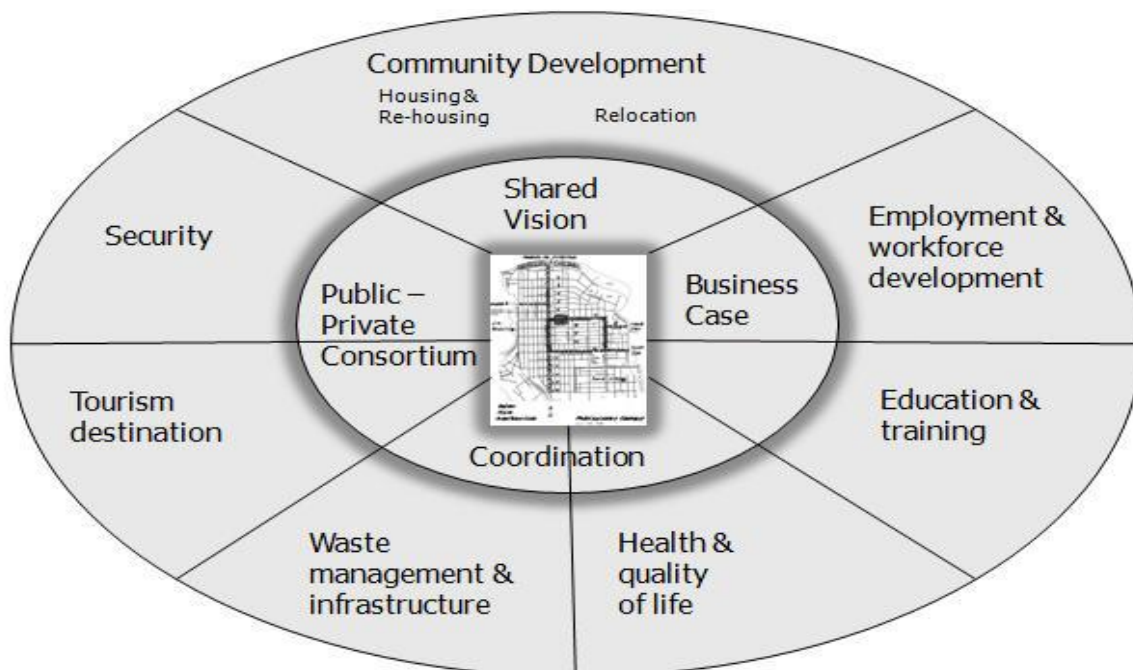
¹³ (Gobierno Nacional - Republica de Panama, 2009)

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- c. Turn around gangs to 1,250 productive jobs related with Colon's transformation
 - d. Reduce costs of criminal activity –estimated in 14 million Balboas¹⁴ per year-
2. Job creation and employment:
 - a. 14,700 jobs for the 2011-2014 period, 2,199 jobs in 2011
 - b. Reduce unemployment from 23 % to 11 % for 2014
3. Recover real estate value¹⁵
 - a. 127 million Balboas in real estate value added (new construction plus appreciation of existing real estate)
 - b. 240 million Balboas in construction revenue
4. Increase tourism revenue (visitors)
 - a. 17 million Balboas in additional and new visitor's spending
5. Health and sanitation
 - a. Reduce 80 % current rates of dengue, respiratory and gastrointestinal disease among residents
 - b. 20 million Balboas a year in health cost reduction –for government and residents-
 - c. Create 662 jobs in waste management (recollection, recycling)

In order to achieve progress in closing the gaps in all strategic indicators, avoiding the fate of previous projects that focused on improving specific areas, the consulting team developed a systemic framework and tools to coordinate all the efforts and actions required for a successful recovery and transformation, shown in Figure 1.

Figure 1: Framework for Colon's transformation



¹⁴ Pegged to US dollar at 1 to 1 parity

¹⁵ (Harrison Price Company - International Tourism and Resorts Advisors (INTRA), 1997)

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This model helped visualize Colon City as a *social ecosystem*¹⁶ whose specific functions and subsystems –such as security, housing, health or tourism- only can produce successful and stable results if they are focused and aligned to a shared vision and common indicators.

The key to successful recovery of Colon City historical center –and the entire *Manzanillo island* area- was to align actions in the seven areas following a shared vision and a integrated plan – shown in Table 2-.

Table 2: Integrated actions for Colon City’s transformation

Area	Approach & actions	Synergies with
Community development	<ul style="list-style-type: none"> • Coordinate and align efforts: turn from “relocation” into transformation of Colon and new host communities through private & public action • Creating social and economic conditions for successful new communities 	<ul style="list-style-type: none"> • Jobs • Transportation
Security	<ul style="list-style-type: none"> • “Broken windows” approach • Turning gangs around • Creating local jobs • Attracting, developing and retaining human capital to Colon City • Increase critical manpower and resources for: police, justice, education and health services • Improve critical infrastructure • Health 	<ul style="list-style-type: none"> • Community development (construction) • Waste management (jobs) • Health & quality of life • Education & training
Tourism destination	<ul style="list-style-type: none"> • Cultural shows • Historic buildings and places (“Stranger’s Club”) • Tourism circuits • Tourism package project coordination • Employing local workforce for hospitality, tourist guides • Coordinate and organize value chain (from the port / airport on and back) • Organize services around shared client experience 	<ul style="list-style-type: none"> • Education & training • Community development
Waste management and infrastructure	<ul style="list-style-type: none"> • Involving local workforce in cleaning , infrastructure building, sanitation and health campaigns • Block teams of residents to keep the city clean and provide quick feedback for improvement, problems • Local recycling and waste management micro enterprises, teams generating extra revenue, self-sufficiency, local jobs • Education as prevention agents 	<ul style="list-style-type: none"> • Health and quality of life • Security (de-slumification¹⁷)
Health & quality of life	<ul style="list-style-type: none"> • Campaign for clean water and air • Remodeling local hospital, health centers for prevention • Campaigns for respiratory, gastrointestinal diseases • Improving food supply and preservation chains • Health and cleaning habits education 	<ul style="list-style-type: none"> • Security • Community development • Waste management

¹⁶ (Bernardez, The power of entrepreneurial ecosystems: extracting boom from bust, 2009)

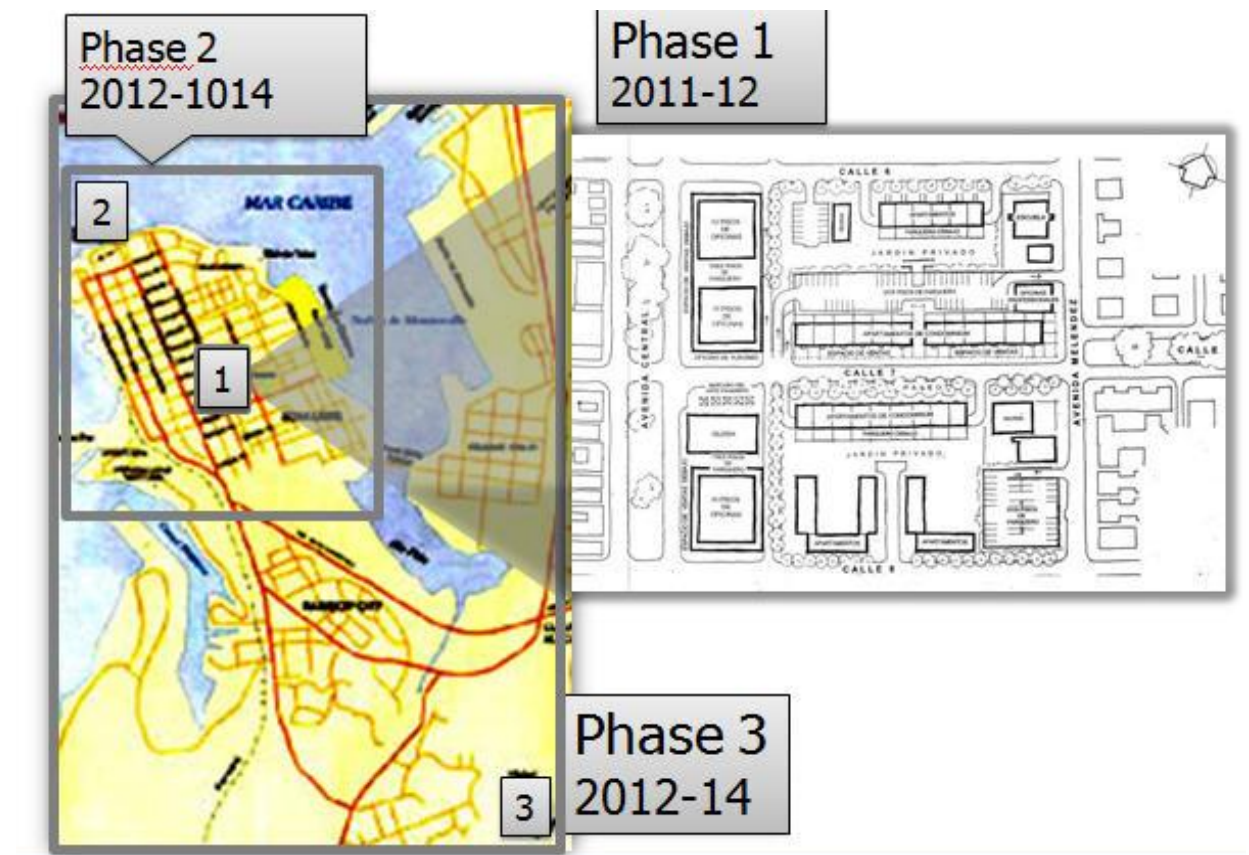
¹⁷ In her 1961 book The death and life of great American cities Jane Jacobs coined the term “de-slumification” to describe how slum dwellers can turn around and revert the decay by taking ownership and finding reasons to stay (Jacobs, 1993)

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Education & training	<ul style="list-style-type: none"> • Transportation (commuting, connecting parts of the city) 	jobs
	<ul style="list-style-type: none"> • Focus on SKA required for Colon City's transformation jobs, employability • Graduating not only individuals, but small companies able to provide services to Colon City and create sustainable jobs • Kindergarten to University approach, job market-oriented education, vertically aligned • Run by a public-private consortium integrated by government, business and universities 	<ul style="list-style-type: none"> • Community development • Employment and workforce development
Employment and workforce development	<ul style="list-style-type: none"> • Provide alternatives to gangs and subsidies • Increase local workforce's employability • Put Colon's resident to work in Colon's transformation • New model of contract for community building linking housing to jobs and performance standards 	<ul style="list-style-type: none"> • Security • Education and training • Tourism • Waste management

The actions in each area must be coordinated and sequenced with others to avoid conflicts and unwanted consequences –such as, for example, relocating squatters in places where they cannot find jobs- and “connecting the dots” finding synergies between different areas that save time and resources – such as, for example, employing former and recovering gang members in cleaning streets, recycling and managing waste and building their new houses and remodeling the old historic district-

Figure 2: Three stages in Colon City's transformation



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The redevelopment of Colon City under our integrated approach would involve three stages: it Phase 1, we will start with a "demo block" area involving several highly visible block in the city historical center. The recovery of the demo block would serve to show the country and the city residents that change is finally going to happen, unlocking the forces for it from their stalemate. Phases 2 and 3 will expand the model to the rest of the city, applying the lessons learned each previous stage.

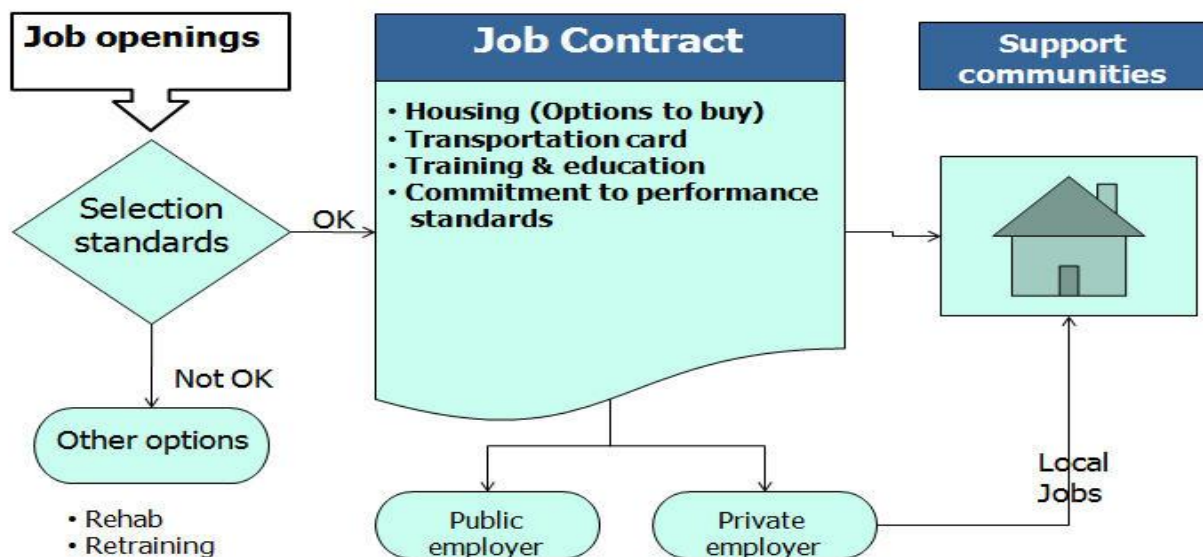
From "relocating" and "rebuilding" to community development

Under this comprehensive approach, current Colon City dwellers and squatters –currently viewed as the "problem" by those prioritizing security, real estate and tourism goals- could be a key part of the solution¹⁸.

Rather than merely relocating the dwellers and bulldozing the decay –which would just move the problem to other communities-, the integrated approach proposed involving current dwellers in reconstruction, waste management and touristic development jobs under a specific model of contract that will establish a "fair deal" for all stakeholders.

The new project would start with a series of job postings, offering residents the opportunity to apply for transformation jobs. These jobs would require in turn, that they move to homes in support communities close enough to commute Colon City to work in construction, waste management –cleaning up and rebuilding sanitary infrastructure, recycling-, as micro contractors or in tourism support jobs.

Figure 3: A "fair deal": labor for homes contracts to turn around the city and its dwellers



¹⁸ (Katz, 2008)

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The new contract would allow dwellers to pay for new homes in supporting communities with special loans under the condition of meeting clear performance standards, acquiring the required competencies, and participating in a workforce development program.

The additional tax revenue generated by the appreciation of the historical center real estate would finance the community development programs.

Security –another key ingredient for success- would be approached by a combination of increased policing following Kelling and Cole’s “*broken windows*”¹⁹, preventive and participative approach.

Security would start with local police trained in the methodology engaging block dwellers, making regular beats and organizing community protection teams to prevent crime –by peer-to-peer persuasion to defuse violent conduct -successfully implemented in Chicago and New York²⁰-, ensuring that sidewalks and buildings are clean, illuminated and supervised by “many eyes” of those working and living there.

Tourism and *real estate* would be considered not just as a revenue driver but as a opportunity to showcase Colon’s turnaround attracting new visitors, residents and investors, working in coordination. Developers, urban planners and tourism promoters should view the city from the perspective of visitors and residents, making sure that their experience of the city attracts them to stay and return. All stakeholders –from residents and visitors to those interested in conducting business in and to Colon would provide input to identify clear standards for visitors and residents’ experience.

Cities get sick primarily when they become inhospitable to their own dwellers. Streets and buildings to not decay by themselves unless other forces –usually social and economic- affect their residents and trigger a typical case of what Jane Jacobs called “*slumification* process”²¹.

Therefore, transforming a sick city in a healthy one requires looking at the problems from a dweller’s perspective and find out the conditions required to make people stay and care for its sidewalks, lights, trees and water again.

Only when the requirements of a satisfactory, attractive *city experience* for residents and visitors are defined as standards can the multiple specialized suppliers involved in the transformation work together avoiding “side effects” , “unintended consequences” and waste.

All the suppliers involved in the city transformation –from developers to cab drivers, from hotels to shops and restaurateurs- must use Colon’s visitor and resident’s experience standards –shown in Figure 4- as guidelines to define their products and services to the city.

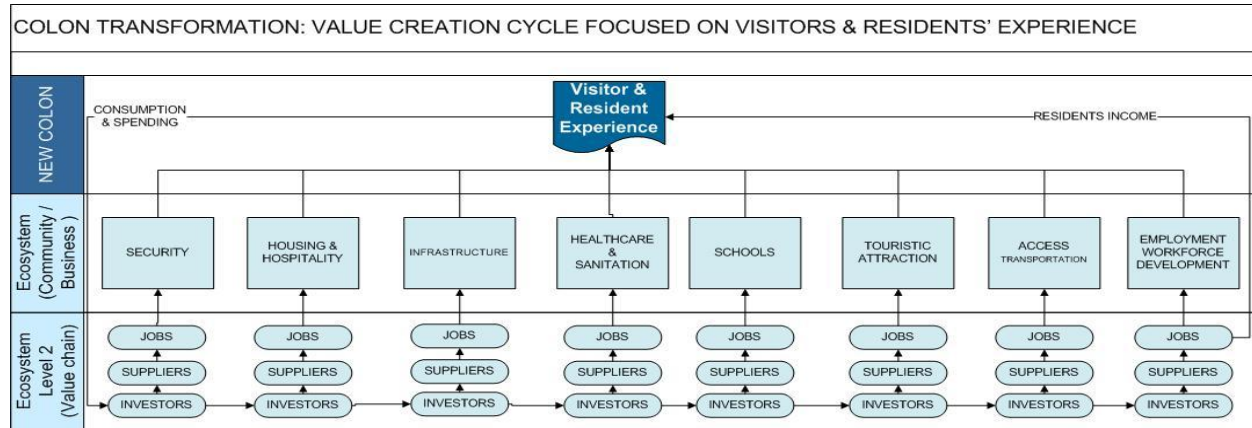
¹⁹ (Kelling & Coles, 1982, 1997)

²⁰ (Giuliani, 2002) (Knobler, 1998) (Maple, 2000) (Siegel, 2005) (Silverman, 1999)

²¹ (Jacobs, 1993)

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Figure 4: Colon City transformation alignment tool: the client experience value creation cycle



A business case for social change

One of the key reasons why cities get sick and why partial approaches –no matter how well designed - fail to recover them and even can make them sicker is that all parties involved look at different scoreboards that reflect *their* part in the process, but not others.

Our proposal for effective change utilizes a double bottom-line business case that reflects the impact of all transformation actors –from labor and business to government agencies- and shows in monetary terms what is in it for them.

Social impact: the Mega level

Since the social dimension is where Colon problems started in the first place, any effective recovery effort must measure the progress in terms of social indicators.

Crime, insecurity and sanitation problems have costs not only in human, but economic terms. In the case of Colon City, respiratory and gastrointestinal diseases generated by poor sanitary conditions –untreated sewage, still water pools under tropical climate and poorly ventilated buildings- cost the city and their dwellers 3,8 million dollars a year in drugs, lost wages and hospitalization-

Rampant crime and gang activity not only create fear and make residents flee the city center, but also generate costs in terms of crime-fighting activities –such as those requiring policemen, courts and prison staff and infrastructure-, as well as in property loss and residents and visitors loss –requiring another 3 million dollars a year-.

The Mega level top line –shown in Table 3- brings “externalities” into the economic and social equation, setting measurable goals and making them manageable.

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Table 3: Colon business case: measuring Mega-level, social impact

NEW COLON - BUSINESS CASE								
	2011		2012		2013		2014	
MEGA LEVEL RESULTS (SOCIAL IMPACT)	Jobs	Income	Jobs	Income	Jobs	Income	Jobs	Income
Relocation	60	576,000	60	576,000	60	117,782	60	117,782
Redevelopment (Demo Block)	409	5,265,009	818	7,848,960	1,123	14,465,895	2,044	26,325,044
Tourism	80	1,030,334	160	2,060,669	192	2,472,803	230	2,967,363
Hotels & restaurants	80	768,000	128	1,228,800	192	1,474,560	184	1,769,472
Waste management	80	235,565	160	471,129	192	565,355	230	452,284
Shipping	100	960,000	200	1,920,000	240	471,129	288	565,355
Terminals	50	480,000	84	806,400	101	197,874	121	237,449
Free Zone	15	242,375	20	192,000	30	58,891	36	70,669
Infrastructure	60	176,673	90	864,000	135	265,010	162	318,012
Private & public projects (click for detail)	545	5,232,000	545	5,232,000	545	5,232,000	545	5,232,000
Government								
Police/Security	120	1,152,000	240	2,304,000	360	706,694	432	848,033
Justice	60	576,000	120	1,152,000	180	353,347	216	424,016
Education	80	768,000	160	1,536,000	240	471,129	288	565,355
Health cost reduction		3,812,629		4,575,155		5,490,186		6,588,223
Unemployment cost reduction		13,464,334		6,028,806		4,320,644		4,762,757
Crime & security cost reduction		2,186,486		3,498,377		4,198,052		5,037,663
TOTAL MEGA RESULTS	1,739	36,925,405	2,785	40,294,296	3,590	40,861,353	4,837	56,281,478

Reducing security and health costs and property losses and transform city conditions will generate jobs that must also be measured in the Mega-level “top line” of the city transformation business case. Relocation, redevelopment, tourism, hotels & restaurants, waste management, shipping terminals and infrastructure will add 1,390 jobs in the first year and 12,900 jobs over the 4-year transformation period.

More importantly, 70 % of the jobs –shown in Table 4 - would be permanent, reducing the unemployment rate at the level of Panama City –half of current Colon’s level- and with wages above minimum wage and Panama’s average per capita income, ensuring that those residents that signed up “fair deal” contracts will be able to repay their home loans and acquire permanent and dignified housing.

By sequencing the transformation process, low-skilled jobs –such as construction and waste management- will represent the majority of openings in the first year, and skilled jobs –such as tourism and hospitality, health, education, security and high-paying jobs in the Free Zone- will gradually represent a higher percentage of openings as the educational and workforce training programs progress.

The revenue from all this new income will represent an additional 58 million Balboas to be spent in Colon City as “ripple effect”, supporting further indirect jobs in the community.

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Table 4: Jobs to be created by Colon City's transformation

		2011					2012					2013					2014				
Jobs created	Avg Salary	Total	Perm	Temp	Job Rev.	Total	Perm	Temp	Job Rev.	Total	Perm	Temp	Job Rev.	Total	Perm	Temp	Job Rev.				
Relocation	9,600	240	60		60	576,000	60		60	576,000	60		60	576,000	60		60	576,000			
Redevelopment	12,879	4,394	409	281	128	5,265,009	818	562	256	7,848,960	1123	1123	512	14,465,895	2044	640	1404	26,325,044			
Private & public projects (click for detail)	9,600	2,180	545	109	436	5,232,000	545	109	436	5,232,000	545	109	436	5,232,000	545	109	436	5,232,000			
Tourism	12,879	662	80	20	60	1,030,334	160	40	120	2,060,669	192	48	144	2,472,803	230	58	173	2,967,363			
Hotels & restaurants	9,600	546	80	40	40	768,000	128	80	48	1,228,800	154	96	58	1,474,560	184	115	69	1,769,472			
Waste management	2,945	662	80	20	60	235,565	160	40	120	471,129	192	48	144	565,355	230	58	173	678,426			
Shipping	9,600	828	100	50	50	960,000	200	100	100	1,920,000	240	120	120	2,304,000	288	144	144	2,764,800			
Terminals	9,600	356	50	20	30	480,000	84	24	60	806,400	101	29	72	967,680	121	35	86	1,161,216			
Free Zone	16,158	101	15	5	10	242,375	20	10	10	192,000	30	15	15	484,751	36	18	18	581,701			
Infrastructure	2,945	447	60	20	40	176,673	90	30	60	864,000	135	45	90	397,515	162	54	108	477,018			
Government						0				0		0	0	0		0	0	0			
Police	9,600	1,152	120	40	80	1,152,000	240	80	160	2,304,000	360	120	240	3,456,000	432	144	288	4,147,200			
Justice	9,600	576	60	20	40	576,000	120	40	80	1,152,000	180	60	120	1,728,000	216	72	144	2,073,600			
Education	9,600	768	80	40	40	768,000	160	80	80	1,536,000	240	120	120	2,304,000	288	144	144	2,764,800			
		12,832	1659	Income		17,461,957	2785	Income	5,466,278	26,191,958	3552	Income	6,971,929	36,428,559	4837	Income	9,495,376	51,518,641			

Business Impact: the Macro level

The Macro-level top line –Table 5 - shows all business partners and stakeholders what is in Colon City transformation for each one of them. A healthy city will attract visitors from abroad – either coming to the cruise ship port or to the Fields airport- and from Panama City –distant only one hour through the new Panama-Colon highway.

In designing the business case we suggest a conservative approach, focusing on the sustainable jobs that will generate revenue for local businesses –thus calculating to capture only a fraction of the revenues coming from the Free Zone (which currently are spent or invested outside Colon).

Table 5: Macro level “top line” revenue for business

MACRO LEVEL RESULTS BUSINESS IMPACT)	2011		2012		2013		2014	
Tourism revenue	1.2	974,115		1,948,230		6,823,916		8,188,699
Real estate revenue		10,656,050		21,312,100		42,624,200		53,280,250
Construction revenue		77,432,318		65,811,040		58,581,312		44,999,161
Waste management revenue		942,259		1,884,517		2,261,421		1,809,137
Terminals								
Free Zone								
Estimated tax revenue								
TOTAL MACRO RESULTS		90,004,741		90,955,887		110,290,849		108,277,247

The Macro section of the business case helps individual companies to size the potential market for their services, building their own individual business cases and linking their products and

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services –and their prices- to the benefits to be delivered to the community and other client companies –thus creating a sound value proposition for their clients²²-

How to get there: Micro deliverables

This section of Colon’s business case shows how specific deliverables –what each contributor makes or does- generates benefits for different stakeholders –residents, investors, companies or visitors- and Macro-level revenue for the company that produces them.

At the Micro level, the business case quantifies all major deliverables for each year of city transformation: jobs created, housing units built or remodeled, tourist visits –broken into the demo block (Phase 1) and the rest of Colon City (Phases 2 and 3), workforce members trained, crime levels, infrastructure, water, power, street lighting and others.

Each Micro deliverable can –and must- be break into more specific outputs for each year and month of the project so that each accountable contributor can manage and track the progress in delivering the required products and services.

Table 6: Micro level deliverables for Colon’s transformation

MICRO LEVEL RESULTS (DELIVERABLES)	2011	2012	2013	2014
Jobs Created (Colon City + Demo Block)	1,739	2,785	3,590	4,837
Housing units built/remodeled	583	583	1,165	2,330
Tourist visits (Colon City+Demo lock)	34,906	92,448	154,080	308,160
Colon City	34,560	77,040	128,400	256,800
Demo block	346	15,408	25,680	51,360
Training & workforce development	1,739	2,785	3,590	4,837
Security (total crime)				
Infrastructure				
Water				
Power				
Lights				
Clean air, environment				
Unemployment rate	23.7	17	14	11.85
Total unemployed	8,087	5,801	4,777	4,044
Reduction per year	2,286	1,024	734	809

²² (Anderson, Narus, & van Rossum, 2006)

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Measuring the social and conventional ROI: the double bottom line

Instead of the traditional approach of estimating costs and then track the appropriation and utilization of resources as the basic measures of public projects' progress, our double bottom-line methodology focuses on measuring the Return On Investment (ROI) for each year at two levels: social and conventional.

Conventional ROI measures the return of all organizational investments against their revenue and profits. Social ROI measures the return on investments for all social stakeholders comparing the monetized value delivered or saved by the community to the investments.

Company revenue and profits spent in the community become also social revenue, making clear that the purpose of for profit organizations is doing well by doing good –and that those two conditions are not exclusive but mutually necessary.²³

Social ROI serves this way as a government and policies' scorecard and help citizens and taxpayers to track the impact and effectiveness of their tax dollars (or in this case, Balboas) rather than just their appropriation.

Only when we get the double ROI results can we distinguish investment from mere spending.

Table 7: The double bottom line

COSTS	2011	2012	2013	2014
Program planning, integration & coordination	400,000	300,000	250,000	200,000
Redevelopment cost	16,700,000	8,350,000	6,680,000	5,010,000
Housing & relocation cost	9,000,000	9,000,000	9,000,000	9,000,000
Tourism investment				
Trainig & workforce development	2,972,200	1,330,836	953,766	1,051,360
Security development cost				
Waste management cost	942,259	1,884,517	2,261,421	1,809,137
Infrastructure investment	57,750,000	57,750,000	57,750,000	57,750,000
	2011	2012	2013	2014
TOTAL COSTS	0 87,764,459	0 78,615,353	0 76,895,186	0 74,820,497
CONVENTIONAL BOTTOM LINE (MACRO-COSTS)	2,240,282	12,340,534	33,395,663	33,456,750
SOCIETAL BOTTOM LINE (MEGA+MACRO-COSTS)	39,165,687	52,634,830	74,257,015	89,738,228
VALUE CREATION RATIO (SOCIETAL/CONVENTIONAL bl)	17.5	4.3	2.2	2.7

²³ (Bernardez, Achieving Business Success by Developing Clients and Community: Lessons from Leading Companies, Emerging Economies and a Nine Year Case Study , 2005) (Bernardez, Minding the business of business: tools and models to design and measure wealth creation, 2009, Volume 22, Number 2)

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Another chance for Colon

“Those of us who knew Aspinwall (or Colon) in the early stages of the American occupation recall the long rows of little frame houses, the motley throng of good and bad men from almost every land, the gambling houses, the street quarrels and arrests; in fact, the whole a queer, wild, dangerous, but in some aspects, an interesting place.

Today, what a change! Colon has more than 31,000 people, some miles of paved streets, motorized traffic services, underground sewers, a fine hotel, a commodious hospital, numerous up-to-date buildings, greatly expanded and other facilities and aspects of a modern and clean city.”

(Rowe & Gil Borges, 1924)

“There is no fair wind for a rudderless ship”

*Mexican saying
(Kaufman, 2006)*

As the hopeful and optimistic description of 1924’s Colon reminds us, the city has gone through several cycles of booms and bust before.

While its strategic location as a gate between two oceans have made the winds of trade blow in Colon’s back, inattention and neglect to the unintended consequences of quick and often chaotic growth have turned the huge trade inflows into “*cathastrophic money*²⁴”, a force that –by blindly maximizing short term gains and partial fixes- splinters the city into walled clusters of prosperous business surrounded by ghettos, fueling the conditions for decay and social unrest and slummification.

Making a conventional economic case for Colon City has always been easy, but failing to factor the impact of “externalities” such as human and social capital –jobs, education, security, housing- in both top and bottom lines turns any conventional business case into a piece of “wishful thinking”.

Managing a city is all about managing externalities. The double bottom-line business case helps to measure and target all the key externalities of the city, making them manageable.

By applying the approach and tools discussed in this article, all Colon City stakeholders – residents, visitors, government, business and investors- can work together building not just successful businesses but a successful community that can be both wealthy and hospitable, laying the foundations for lasting and enjoyable prosperity for them and future generations.

²⁴ (Jacobs, 1993)

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Abstract