Studying linkages between environment issues and poverty: a case from urban Uruguay

Análise das interações entre questões ambientais e pobreza: um estudo de caso do Uruguai urbano

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Resumo
As políticas públicas e as ações governamentais voltadas para o desenvolvimento e redução da pobreza tradicionalmente dialogam pouco com questões ambientais. Isso acontece geralmente pelo próprio formato do processo de desenho de políticas públicas setoriais, que possuem metas direcionadas a responder a problemas específicos. Este paper tem por objeto levantar elementos para discussão sobre o potencial de se responder a problemas multissetoriais com políticas públicas que produzam melhores resultados e maior impacto nas populações atingidas. Para tanto, estudou-se o perfil da pobreza no Uruguai, assim como seus problemas ambientais no espaço urbano e periurbano de Montevideu. Ao mesmo tempo, apresentou-se uma discussão sobre o potencial de convergência de políticas públicas voltadas para a redução da pobreza, de um lado, e para o meio ambiente, de outro. Conclui-se que as duas temáticas possuem congruência. Entretanto, para uma aplicação com mais efetividade, as políticas públicas deveriam incluir igualmente outras variáveis como: perfil racial e étnico, questões de gênero, políticas para a infância e juventude, políticas de alfabetização e de moradia.

Abstract
Public policies and governmental actions aimed to promote economic and social development and poverty alleviation traditionally have little linkages with environmental issues. This usually happens by the process of agenda-setting and design of public policies directed to respond to specific problems. The purpose of this paper is to raise topics for discussion around the potential to create policies that may produce better results with greater and more positive impact on affected populations. Therefore, we studied the profile of poverty in Uruguay, as well as its environmental problems in urban and peri-urban areas in Montevideo. At the same time, a short presentation is made about the potential to create linkages between policies aimed to tackle poverty alleviation and concomitant environmental issues. We conclude that the two aspects have coherence. However, for an effective application, public policies should also include other variables such as racial and ethnic profiling, policies for children and youth, gender issues, literacy policies and housing.

Palavras-chave
Pobreza e Meio Ambiente. Políticas Públicas. Espaço urbano e periurbano. Montevideo. Uruguai.

Keywords
Poverty and Environment. Public Policies. Urban and periurban space. Montevideo. Uruguay.
“Although free-market dynamics create inequalities in cities around the world, in Latin America and the Caribbean the inequalities are more dramatic because of the striking asymmetry in infrastructure and social services. In urban areas, where demand from the fastest-growing economic activities and the highest-income families is concentrated, land acquires real state value and this prevents access by or forces out less profitable activities and lower-income families” (SMOLKA, 2001 apud ECLAC, 2010, p. 134).

INTRODUCTION: MAKING SENSE OF ENVIRONMENT AND POVERTY LINKAGES IN PUBLIC POLICIES

The association between poverty and the environment has been the object of growing interest and attention from international agencies and policy makers in recent years. In the center of this new inclination is the understanding that the inclusion of the variable environment in the policies aimed to fight poverty and extreme poverty may carry to such policies a better stability in the long term. In a number of publications this interpretation has been raised based in the point of view that the relationship between the poor and the environment is an adequate indicator of policy success and sustainability (ANGELSEN, 1997; b, c).

This review aims to deepen the knowledge about this linkage with a specific focus on the urban and peri-urban areas in a middle-income country like Uruguay. Many research efforts have established the dependency of the poor on the natural resources to make their living. In the urban setting, the environment is mostly built and with the specific characteristics of shortage of natural resources with an open access status. Concurrent to this, environmental depletion impacts more strongly the vulnerable, creating a persistent cycle which has proven difficult to break.

Understanding the nexus between poverty and the environment has important policy implications for sustainable human development in the long term. Consideration of this linkage should be taken into account by policies focusing on reducing poverty and in responding to the needs of the poor. Additionally, policies aimed to protect, conserve and manage the environment must also recognize the relationship the poor have with the natural environment.

The literature on this subject demonstrated with strong argumentation and empirical data how the depletion of the environment could worsen the poverty levels since it reduces the capacity of the most vulnerable to access the goods on which they depend on for survival. Thinking about a bi-directional –
more dynamic model is a possible path and a way to show the endogeneity there is between the two variables (BHATTACHARYA; INES, 2006).

This paper aims to discuss such possible model. To do so, we must assess where the major urban environmental issues and income levels intersect in order to better understand the correlation between them. At the same time we have to answer the question on how to achieve a sustainable development with inclusive growth? Many of these issues define the current challenges in Uruguay, a small-sized middle-income country in Latin America which has achieved much in its development through the intensive use of environmental goods but whose progress is hindered by the persistence and intensification of poverty and inequality.

1 URUGUAY: DEFINING THE POVERTY ENVIRONMENT URBAN POLICY SPACE

Poverty, as a complex and multidimensional social phenomenon, has more often been object of studies and research in the context of rural development, perhaps, because the rural space is largely inhabited by the poor (BUCKNALL, et al. 2001). The poverty-environment nexus in this context appears to be better understood also in its complicated internal dynamics. Though these interactions are largely also mirrored in the urban space, they manifest differently as compared to the rural context.

Poverty has largely been defined in two major ways. In the first case, largely neoclassical, poverty is seen in terms of income deficits and as an externality of growth and the lack of income necessary to satisfy the basic living needs. However, another definition perceives poverty as going beyond income levels. This perspective uses terms such as “human poverty” or “non-income poverty”, factors such as the lack of capacity to determine basic capabilities, and the importance of having a full and creative life. Other considerations are the quality of drinking water, access to education and health care, nutritional levels, including issues of power, influence and agency. It is recognized that both forms of understanding poverty should be considered (UNDP, 2003; UNECA, 2008).

Notions of the natural environment are broadly defined through two major and socially significant functions. On the one hand, it is a natural resources base from which raw material and energy can be extracted. It is also a natural “sink” that absorbs (within limits) the pollution produced by industrial and other human activities. Urban interventions, shape spatial, social and cultural aspects and influence the sink and resources-supply functions in the city space.
Uruguay is a country with economic and social indicators above average, as compared with other South American countries. In recent decades, it has experienced significant changes in the political arena. Neoliberal economic programs heavily exposed the country to international crises and the political response was immediately felt in later pools. Uruguay was thus specially affected by a series of economic downturn in the 1990s and 2000s. The most adverse impacts of these crises fell on the poor and the most vulnerable segments of the population. The poverty rate has doubled in a few years to nearly 40% and the unemployment rate reached 20%. This trend has then been reversed, accompanying an extraordinary change in the political arena with the election of the Frente Amplio (FA)\textsuperscript{1} candidate and the rejection by Uruguayans of the neoliberal economic policies, which had dominated until then.

Nonetheless, the relative impoverishment of Uruguayan society was stronger than in other places and the economic recovery has been slower. This has been as a result of specific characteristics, which define Uruguay. As a small sized country, it suffered with external impacts more than other countries with larger scale capabilities. Thus, the poor, within its relationship with the environment, have specific qualities and social dynamics in Uruguay.

2 BACKGROUND OVERVIEW

Uruguay is the country with the highest rate of urbanization in South America. Likewise, it is the only country in Latin America to have higher concentration of extreme poverty in urban than in rural areas. A process of de-industrialization, decrease of salary, precariousness in working conditions and growing unemployment has worsened the economic wealth of the country and also has enlarged the social inequality gap. Despite these negative aspects, Uruguay has the lowest level of inequality and poverty in Latin America.

A multidimensional analysis of poverty in Uruguay suggests significant diversity, ranging from those in a transitory situation to the chronic poor. The very poor – indigent in the terms of the Office of National Statistics (INE) - has decreased from 2,7% to 1,6% (INE, 2010) of the total population between 2006 and 2009. Small cities with less than 5,000 inhabitants and Montevideo show higher percentages: (2,1%) and (1,8%), respectively. Around 4,0% (two and a

\textsuperscript{1} Uruguay has two traditional parties: the Partido Blanco (or Nacional) and the Partido Colorado. Frente Amplio is a federation of smaller left parties adopting socialists, christian socialists, leninists, trotskists, etc. views. FA was founded in 1971 and was violently and brutally persecuted by the military dictatorship from 1973 to 1984.
half times the average for 2009) of the children below 6 years old live in extreme poverty and 3.6% of those are in the 6 and 12 years old age group.

The overall social situation got better in recent years and poverty has dropped in Uruguay from 34.4% to 20.9%, with higher averages in small towns (25.4%) and in Montevideo (24%). Figures from INE (2010) also show us that 37.8% of the children under 6 years old and 36.2% between 6 and 12 years old are poor. Taking in consideration Montevideo only those figures are 44.1% and 43.7% respectively (INE, 2010: 24). The available information hints at gender differentiation at a macro level. For instance, in terms of income, a poor man earns an annual average 7129 pesos and a woman 4514 pesos, even if the woman has a higher level of education (Head of household questionnaire – INE, 2010, p. 32). Women are responsible for about 44% of the total households (INE, 2006) of which one per cent are in extreme poverty (Table 1).

Table 1. Average income per capita evolution in places with 5000 or more inhabitants.

| Year          | Total   | Montevideo | Other municipalities |
|---------------|---------|------------|---------------------|
| 2001          | 100.0   | 100.0      | 100.0               |
| 2002          | 86.4    | 86.9       | 86.0                |
| 2003          | 74.5    | 73.9       | 76.1                |
| 2004          | 76.2    | 75.1       | 78.1                |
| 2005          | 77.6    | 75.8       | 81.1                |
| 2006          | 83.1    | 81.6       | 93.0                |
| 2006 – 1st Semester | 81.4 | 79.7       | 91.7                |
| 2006 – 2nd Semester | 84.8 | 83.5       | 94.7                |

Source: INE, 2006 and Amarante (2006).

3 SYNTHESIS OF KEY POLICY ISSUES

Though there has been much discussion in the literature and a general consensus of the importance of the environment-poverty nexus for policy, conceptual and practical difficulties remain in translating this into viable actions. Traditionally, the underlying premise has been that “poverty” is a threat to environmental management, particularly conservation. While this remains to some extent true, at a nominal level, it is equally true that the rich and better off have much more access to public goods, such as the environment, than the poor do and use it more often. The richest percentiles use more goods with intensive use of natural resources (Table 2).
Jehan and Umana (2002) showed the importance of building this nexus in order to achieve the Millennium Development Goals of the United Nations Development Program, for example. A list of environmental and social issues that foresees our goal here is shown below.

Table 2. Natural resources depletion risk and overuse of sink function x environmental treats in urban areas with remarks on local reality in Uruguay

| Depletion | Pollution | Social Situation |
|-----------|-----------|------------------|
| Indoor Air Pollution | - | Yes | This is a major public health issue since it causes serious problems especially between children, women and the elderly that may present symptoms of airborne diseases. |
| Land Pollution | Soil services are lost, e.g. important repository for water, nutrients and relevant life form | Yes | Health impacts on unskilled workers caused by the use of pesticides like in the soybean production |
| Waste and Industrial Pollution | Possible soil services loss at many different levels. Metallic waste have permanent ecological impacts on many life forms | Yes | One example is lead contamination of the soil in Montevideo which resulted in high blood lead levels among a large number of children living in socially vulnerable conditions |
| Residential Waste | Possible soil services loss. A small amount of waste, specially plastic, may have big impacts in the aquatic life forms | Yes | Urban waste management economy is a central issue. This is a green job with positive effect both in poverty reduction and in waste recycling. Good policies in this area may increase the potential of these activities and bring other co-benefits. |
| Basic Sanitation | - | Depends on the level of treatment. May impact heavily watercourses. However some rivers like the Garonne in France have around two third of its water used, cleaned and thrown back in the river, mainly by industrial activities like Nuclear power stations. | This is a major issue since it counts for and important cause of sickness and deaths among the children and most vulnerable. Our figures show that 85% of Montevideo and 35% in other cities has sewage collection and disposal. |
| Basic Sanitation | - | This may have secondary impacts not seen yet on the human health, fauna and flora. |
|------------------|---|-------------------------------------------------------------|
| Water Supply     | Yes, since the supply for urban water systems constitutes one of the major causes of overuse of rivers, lakes and aquifers | Yes | Uruguay have in the macro level low child mortality rates but still drinkable water supply remain a relevant and permanent issue |
| Housing          | Yes. It is believed that cities are generally built in fertile lands (UN-HABITAT, 2008). The urban sprawl towards the suburbs transforms in the long term the land use and the natural vegetation coverage. | May impact the environment in not with adequate infrastructure | One in three poor in Uruguay lives in slums. Overcrowding, poor structural quality and no tenure security are relevant. Degraded housing may impact on schooling, wealth, stress and lack of solidarity nets. |
| Air and Noise Pollution | - | Yes in local and global terms. Air pollution affect human health and contributes strongly to greenhouse effect and thus climatic change | Uruguay is situated in a geographic position with wind patterns that prevents it to have major pollution peaks. Still it's a major issue since air pollution can cause loss of assets and degrade an entire urban area. Noise pollution impacts in stress levels and in the wellbeing. |
| Exposure to Natural Disasters | May deplete permanently some form of environmental services | May produce one or many forms of pollution | Floods and droughts and since recently cyclones may impact strongly any development policy with an enormous social toll. Major cities in Uruguay are situated in coastal zone |

Source: International Policy Center for Inclusive Growth - IPC-IG.

### 4 PRIORITY AREAS FOR ACTION

Every public policy that aims at changing or influencing social arrangements is intimately related to the physical and social environment and to the territory. Without territory, there’s not an act coming from the public administration to
modify a given social reality. The knowledge about the territory is thus not only important but necessary for the success of any applied policy aimed to modify the issues faced by the poor and deprived in any given municipality, region or country.

A public policy must focus on the territory and on the stakeholder that may benefit the most from it. The entire society benefits from raising the living standard of the poorest stratum of the population. An inclusive growth model focusing on these stakeholders improve the life quality of all. Montevideo has an important characteristic in terms of vulnerability. Its local Human Development Index (HDI) shows a very significant variation within the limits of the municipality. With an index of 0.765 Uruguay is the country with the highest HDI in Latin America and the fact that it has neighborhood in the capital city with an indicator below 0.3 is noteworthy and, at the same time, brings information about the structure of the urban poverty and how it is reproduced over time. To do so, it’s important to give a chance for that data to talk by disaggregating the information that constitutes the HDI, so that it will be possible to see health, education and income levels of specific areas of study.

At the same time it is important to cross this data with the areas of influence of urban rivers and creeks in one side and at the other with the areas of current and old industrial activities. Those two kinds of areas have been indicated as the ones with major number of slums and informal housing tenure. They are also the areas with both major issues we are bringing in this paper. They represent in some aspect regions where some natural good is present and deteriorated generally by waste pollution like in the riverside. And they are the areas with industrial and metallic pollution as well. Those areas are the ones that the poor had to choose in their social strategy to make a living. They were placed there first because of the open access to natural resources, in that case water. Also because they were the primary unskilled labor force for the industrial plants located in the outskirts of Montevideo.

In the Figure 1 we can see the outskirts of Montevideo where the rural area within the municipality is located. The urban sprawl goes to the coastal zone in the East to where the wealthy social classes moved starting the eighties in areas that used to be summer beach houses. And on the side of the economic and social spectrum, the poor settle in old and abandoned central areas, regions close to urban river basins like the arroyos Miguelete, Pantanoso and Carrasco and northward toward the municipalities of Las Piedras and Canelones.
Another important finding is related to the people that constitute the poor in Uruguay. A high proportion of them have racial characteristics that differ from the official image Uruguay has. This country, like Argentina, was nicknamed neo-Europe by some authors (CROSBY, 1993) for having a high percentage of immigrants from European countries. As we will see below, the small amount of Afro-descendants and of Native Americans counts for a high proportion of the poorest people in Uruguay's society. The Census in Uruguay asks the population to classify themselves as in many other countries in Latin America. We have figures coming from different sources with a variation in the results. But even if this part of the population amounts to a small portion of the total, constituting empirically a minority, they are over represented among the poor as we can see below in the tables, graphics and maps. As the INE says “emphasis” is given to the large proportion of people of African descent residing in the groups in the poorest suburbs of Montevideo” (INE, 2008, p. 25).

Table 3: Percentage of Native American and Afro descendents in the total population from different sources and methods [Obs: The method most commonly used in the literature is the ENHA, 2006]

| Source          | Indians | Afro descendent | Question                                                   |
|-----------------|---------|-----------------|------------------------------------------------------------|
| ECH (1996-1997) | 0.4%    | 5.9%            | To which race do you believe you belong?                   |
| CIFRA (1998)    | 12.0%   | 8.0%            | Do you believe having ancestors...?                        |
| ENHA (2006)     | 3.8%    | 9.1%            | Do you believe you have ancestry...?                      |

Source: Amarante (2006).
As we can see in the Figures 2 and 3, the population with African and Native ancestry constitutes an important amount of the total people living in the neighborhoods in the outskirts of Montevideo. This is another relation to be made since in the outskirts of Montevideo we find the lowest HDI. They are as well in a bigger proportion compared to their participation in the total population in areas of *assentamientos* where there is generally lack of urban infrastructure and public services. And they are overrepresented, as we can see in Table 3, in the lower layers of social stratification. They constitute then an important part of the population to have policies focused on.

Figure 2. Map of proportion of non-white population in Montevideo

Nonetheless, it is important to point out that we cannot say that there is a racial ghetto-establishment process in Uruguay. The index showing segregation in the same spatial area is not relevant. But we can raise the hypothesis that the process may have resulted from other factors other than the racial aspect, such as economic and social variables for example. To which extent and deepness it happened is also a question to be raised. The gentrification process we will discuss below operates exchanging population in the timeline. Some neighborhoods expel people and others receive more people. And in this dynamic process some social classes predictably will more often move to some places and not to others. It is a process of urban segregation but not necessarily based on racial terms only, but in other factors that may be anyway affecting more frequently the Afro-descendant and the descendants of Native Americans.
The people with African ascendancy show a population with high birth rate. Since a significant part of that population lives in a poverty situation (lower social stratification in the terms used by Bucheli and Cabela) we can infer that a more relevant part of the poor children are of African ascendancy as well (Figure 4).

If we compare the Map showing the racial distribution in Montevideo with the one with Human Development Index (Figure 2 and 3) we can see without ambiguity a correlation between them. Knowing that the areas in the outskirts of Montevideo correspond to several of those ones, we have as a result at least one convergence for a policy focused on the linkage between poverty and the environment with a first step taken toward a population profile and a territorial identification where to apply the actions.
Table 3. Population percentage by social stratification and ancestry in Montevideo, 2006.

| Social Stratification (INE) | Ancestry       |
|-----------------------------|----------------|
|                             | Afro or Black  |
|                             | White          |
|                             | Native         |
|                             | Total          |
| Lower                       | 39.7           |
|                             | 19.3           |
|                             | 22.5           |
|                             | 21.3           |
| Middle – Lower              | 33.9           |
|                             | 27.4           |
|                             | 29.6           |
|                             | 28.1           |
| Middle – Higher             | 19.6           |
|                             | 30.5           |
|                             | 30.8           |
|                             | 29.5           |
| Higher                      | 6.9            |
|                             | 22.8           |
|                             | 17.1           |
|                             | 21.1           |
| Total                       | 100.0          |
|                             | 100.0          |
|                             | 100.0          |
|                             | 100.0          |

Source: Bucheli and Cabela (2006), based on data from INE (2006).

5 INCLUSIVE URBAN DEVELOPMENT: EMPOWERING THE POOR IN SUSTAINING CITIES

“The urban divide results from social, economic, political, and cultural exclusion”
UN-HABITAT, 2010.

In May 2007, for the first time in history, the world became mostly urban, with more than half of the global population living in cities. According to UN figures, by the end of 2010 it was expected that approximately 51.3% of the population would be urban. Around 90% of the population growth in the future will be concentrated in urban areas and mainly in developing countries. The way urban growth is happening is leading to spatial fragmentation with important segregated areas “that aggravates the social exclusion characteristic of those societies”. (IHDP, 2005, p. 10). Other figures show that between one-quarter and one-third of the world urban population live in absolute poverty.

The current concentration of poverty, slum growth and social disruption in cities does paint a threatening picture: Yet no country in the industrial age has ever achieved significant economic growth without urbanization. Cities concentrate poverty, but they also represent the best hope of escaping from it and this is not different in Uruguay. Montevideo, the major city played an important role in the development process of that country, with a sustained demand for decades for new labor force from abroad. Uruguay had, when the economy was in its apex (between the XIX and the beginning of the XX Century) one of the highest living standard in the world. Nevertheless, even in that period
the minorities of Afro-descendants and Native Americans had low capability to experience social mobility, what translates part of today’s social disparity.

State intervention in an urban area revitalizes it, bringing new infrastructure and new urban equipments adding value to an entire zone. These public actions lead to a process of gentrification in the central urban areas - like in the case of East-European countries after they became members of EU and had access to abundant funds – that expels poor people from these areas. Housing price raises and those people that need access to affordable housing may find a better strategy to live at the outskirts of cities. Inside this process we observe the urban sprawl. For Simon et alii “peri-urbanization refers to a highly dynamic process where rural areas both close to but increasingly also distant from city centers become enveloped by, or transformed into, extended metropolitan regions (Simon; McGregor; Nsiah-Gyabaah, 2004; Aguilar; Ward, 2003; Mbiba; Huchzeremeyer, 2002, apud IHDP, 2005, p. 22).

Cities are changing constantly. They are built and rebuilt all the time. The social use of different spaces is variable as well. Different groups and classes of people use their space differently too. This internal dynamic of cities constitutes largely their own characteristic and to a larger extent their own history. At the same time, these changes show trends and possible processes that deepen exclusion and conformation to specific spaces for each social group. The urban is a natural and a social space, therefore. The process of urbanization is a phenomenon of formation and modification of this socially constructed space, which will over time take a new format. Thus, we observe a process of urban space division based in economic, social and cultural profile.

This separation between the different classes that constitutes the urbanism is physical. The social division takes the form of exclusion, lack of opportunities and concentration of wealth and resources in the hands of a small portion of the total urban population. And, at the same time, cities are the places to live new social experiences. It’s the place for new opportunities as well, “based not only on moral and ethical arguments but also in practical access to opportunity. The concept of an “inclusive city”, or “a city for all”, encompasses the social and economic benefits of greater equality, promoting positive outcomes for each and every individual in society” (UN-HABITAT, 2008, p. IX).

Urbanization has historically helped reducing global poverty levels. Cities are social spaces where inclusion can be addressed optimally. The implementation of policies aimed to reduce inequalities has impacts on the overall decrease in poverty levels. The policies for social inclusion in urban areas tend to be more effective in practical terms and in view of the numerical trend of continuing the
process of urbanization. Focusing on policies for the poor and the environment in urban areas should bring positive results.

More and more a concept of individual and human rights is closely linked to the idea of having the right to the city. Urban reforms tend to serve the interest of the rich and the poor get only a fraction of the overall benefits even if this is the public administration that leads the majority of these projects. To overcome the difficulties of being a poor and excluded can be impossible without some kind of action to be taken by the administration. This is why the idea of a trapped vulnerable social group should be raised. For example, “the majority of excluded groups in slum areas typically fall victim to a sort of *triple jeopardy*: (1) they are poor and uneducated; (2) many are migrants or from ethnic minorities; and (3) many are female” (UN-HABITAT, 2008, p. XVI).

Urbanism projects dealing with democratic governance, equity in the use of cultural goods going hand by hand with economic opportunities for inclusion should be viewed as bringing solutions for an inclusive city. Crossing the social gap through public administration actions in the urban sphere is the best way to fight poverty and negative environmental impacts at the same time.

**CONCLUSIONS**

When working in a research with relevant discussions around the relationship between the poor and the environment, we cannot avoid to remember that the ecological footprint of the wealthy classes - within a same given country and in comparison with the most developed countries as well - is much more significant and impacting to the natural world. In Uruguay, this pattern is not different as well. It is then important to underline that we have to make our analysis taking into account the fact that if the linkages between the environment and poverty constitute a complex set of issues it was a consequence of the relation between the human and nature. The environment we refer to here is a socially built one and can be more dangerous to health and give less natural open access to goods. We cannot take the simplest way: that we have to configure the impacts of the poor on the environment. On the contrary, we have to have a broad view of the society in all economic and social activities and in an intergenerational perspective.

In fact, environmental services are different if we relate them to different income and social classes - in concrete and empirical terms but in symbolic ones too. The poor tend to use raw material and the rich intensive industrial ones.
Different industrial goods impact differently on the environment. They have a long chain that starts with a natural resource, renewable or not. To add value to that natural resource more resources are needed in the form of energy and other goods. In all links of a given chain there is the use of additional environmental services, properly valued or not.

Experiences have been made to attach different governmental agencies to a mainstream transverse theme like the environment. The results have not been conclusive, with some cases reaching success but not all. This process of integration is not obvious and until today we do not have a proved policy solution to rely on. However, many experiences are being implemented worldwide and their success will signal the possibility of having public policies more efficient, with multiple positive outcomes.

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