The Dilemma of Urban Density – A Story from the Largest European City

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Intro about Moscow

I am always surprised when facing the reality how little my friends from EU countries know about Moscow. While for many people it is now usual practice to travel across European countries, from the west to the east, from the north to the south – for some reason, Moscow seems to be out of this horizon.

It is not only its rich past, with many historic and political changes, for which Moscow would deserve much more attention. Besides its enormous size (12,5 million people within the city boundaries, 16-18 million in the metropolitan area), the city is also interesting for the urban development policies and experiments of the last decade. As a background to these experiments it is good to know that Moscow is a very rich city, partly due to its strong economy and political power as capital, partly due to its extensive control over the land market (in the 2000s Moscow resisted the national law on the privatization of land).

The following story picks up only one element of the urban development debates of the last decade, that of the Moscow governments' plan of densification of the urban fabric through the 'renovation' (i.e. demolition and total replacement) of the homes of 1,6 million Moscow residents.

The'khrushchevki' apartment buildings of the 1950s/1960s and their fate since then

Opposite to Stalin's Moscow, which consisted of a ceremonial center with elite housing for privileged populations and quarters of barrack-like buildings where working class people lived, the Khrushchev period brought a complete transition to housing estates, intended for all citizens. Newly built housing estates consisted of mid-rise (groundfloor plus 4 floors with no elevator) apartment buildings, constructed from prefabricated panel elements or bricks, including 80–100 apartments, about 300 inhabitants. The construction of khrushchevkis was aimed to solve the housing shortage problem as quickly as possible, which manifested itself in the low quality of the buildings – the comfort of apartments was traded for the speed of construction. Most of the buildings had low ceilings, small rooms, thin walls, and poor soundproofing. On the other hand, even these low-quality apartments were a huge step forward compared to the previous housing of their new inhabitants. (Gunko et al, 2018)

Two main technologies to build khrushchevkis: prefabricated panel vs. bricks

Source: Iván Tosics (pictures taken in Moscow in 2010 and in 2019)

As an important step in the post-socialist transtition, the mass privatization of housing was officially allowed in Russia on 4 July 1991 with a law by the Russian Government. This meant privatization of housing free of charge on individual and voluntary basis. Residents could decide to stay as social tenants – there are still around 10% of apartments in Moscow which are not privatized.

In the course of the 1990s the future of the – already privatized – khrushchevki apartment buildings became an ever more serious issue. A few of the most derelict buildings were dismantled, but demolition did not become widespread. There were even a few examples of khrushchevki renovation based on private initiatives and investments: investors totally renovated the buildings (even building an elevator) financed by adding two additional floors to the buildings and selling the new apartments on the market.

Examples of investor-financed renovation of khrushchevki buildings

Source: Iván Tosics (pictures taken in Moscow in 2010 and in 2019)

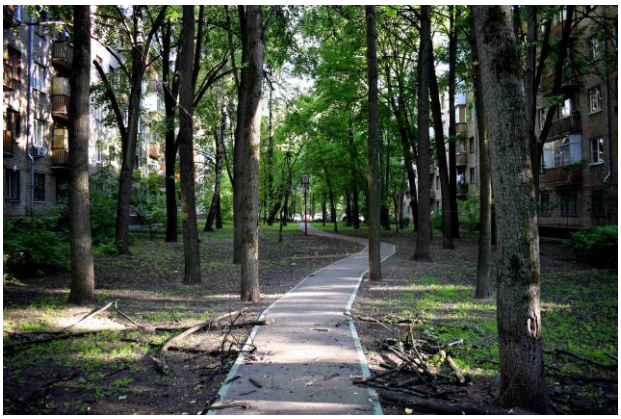
The first overarching concept for the future of these buildings was the 1999 Moscow Government program “Comprehensive reconstruction of the areas of five-storied apartment buildings built during the first period of industrial housing construction”. This aimed at demolishing old apartment

buildings and replacing them with new ones, simultaneously enhancing the built environment, e.g. constructing new playgrounds and recreational spaces. The 1,722 five-storey buildings to demolish were identified according to the type series, thus covering entire housing estates; however, the approach was to evaluate buildings on an individual basis, having strict physical criteria and reasons for demolition. For that scheme (almost completed by today), the city contracted private developers, who built new tower blocks, set aside 30% of the apartments to resettle residents of the old buildings, and sold the rest on the market (Luhn, 2017).

Owners of apartments in the buildings entitled to demolition could refuse relocation options proposed by the Moscow Government and require alternatives. Also, there was an opportunity to move into a larger apartment (including one located in another district) by paying for the extra square meters at a market price. Generally, in districts along prestige vectors, elite housing was constructed in place of demolished khrushchevki. In other districts, replacement housing comprised typical post-Soviet panel housing estates with much higher buildings than the khrushchevki were.

At the time of this first overarching renovation (i.e. demolition) programme the physical parameters of the old buildings were still important – although it was clear that the value of the land/location is at least as important. The Khrushchev housing districts enjoy a subcentral location, good connections to the metro network, and a pleasant environment sixty years after trees were planted. No wonder that at the beginning of the twenty-first century, mayor Yuri Luzhkov projected a ring of sixty high-rise blocks in a neo-Stalinian style precisely in these areas (Inizan – Coudroy de Lille, 2019)

Typical khrushchevki apartment buildings embedded into large green areas



Source: https://meduza.io/feature/2017/08/15/kto-pridumal-renovatsiyu Пятиэтажки в Бескудниковском районе, 27 июня 2017 года. Сергей Бобылев / ТАСС / Scanpix / LETA

http://www.slavictravels.com/moscow-renovation-program/

The 2017 plan of the new mayor of Moscow: towards the 'final solution' to demolish all Khrushchevki

In colloquial language some people call the khrushchevki, which remained by 2017 after the first demolition programme, as khrushcheby, a combination of words khrushchevki and trushcheby (slums in Russian). This is, however, not a just generalization, as none of these city districts have become places of ethnic segregation or socio-economic disparity.

In February 2017, the question of five-storied housing stock was raised again by Sergey Sobyanin, who became mayor in 2010 (Gunko et al, 2018). He announced that a huge program, called 'Renovatsiya' (Renovation) would be set up in the following years: thousands of buildings are to be demolished, as a result of which one-tenth of the Muscovite population is likely to be rehoused up to

2032 (Inizan – Coudroy de Lille, 2019). A fundamental difference of the new "renovation" program from the one launched in 1999 is that now it is not only apartment buildings in dire condition that are subject to demolition and resettlement. The initially mentioned volume of the project was 7934 buildings which would result in the resettlement of around 1.6 million people (Gunko et al, 2018).

In the first half of 2017 many things happenned at the same time: the political debate of the legal regulation was running in parallel with the voting by the residents of the buildings and the emerging mass protests against the demolitions.

Voting of residents

In a decree (postanovlenie) of 2 March 2017 called "about the consideration of inhabitants' opinions in the program Renovation", it was explained that every owner or tenant of social housings could vote in favor of or against the demolition of their house.

Residents deciding about their vote had to face a situation with many uncertainties. It is not clear what will be constructed instead of the demolished housing. Moscow Government announced plans to hold an international architectural contest for the development of new neighborhoods which will be erected at five experimental sites in the city. According to Sergey Sobyanin, the number of storeys in new apartment buildings will be up to twenty, individually determined for each neighborhood. Sobyanin's deputy in charge of urban planning told journalists that there are plans to earmark about 200 billion rubles (3.33 billion US dollars) from the city budget to build houses to resettle inhabitants, constructing some 25 million square meters of dwellings under the 10-to 15-year program. (TASS, 2017 August 1.)

However, these are only statements with no binding power. Many people think that the devil is in the details: what kind of housing will be built and where – new residential towers in Moscow are often as tall as 25-30 storeys. Housing density will almost certainly increase, given that that five-storey buildings now occupy 8,000-10,000 sq metres of residential area per hectare, while city norms allow for up to 25,000 sq metres per hectare.

Different types of newly built high-rise residential buildings

Source: Iván Tosics (pictures taken in Moscow in 2019)

"They haven't told us what technologies will be used in the new buildings, how they will look, and the quality of modern construction in Russia is not that high," a resident said (Luhn, 2017).

One option for homeowners is monetary compensation based on what the authorities reckon the flat is worth. But many residents doubt they will receive a fair price (Leslie- Charley, 2017). There is also a widespread perception that Moscow Government lacks money and resources to implement the program (Gunko et al, 2018).

The time given for inhabitants to express their agreement or disagreement was quite limited. Once inhabitants learned – by a list published on 1 March 2017 – that their house was likely to be demolished, they had one month to vote, between 15 May and 15 June 2017. The privileged way, as expressed in the decree, was voting on the mobile application 'aktivnyi grazhdanin' (active citizen, a digital portal for Moscow residents, created in 2014). It was also possible to go vote in a municipal center. A building would be demolished if two thirds of the voting inhabitants voted in favor of the demolition. The owners could also decide the fate of their building in the frame of a general meetings of owners and inhabitants.

The voting activity of the Muscovites was high: 71% of the residents from the 4.546 buildings included in the preliminary list of the program were voting. The outcome shows high support for demolition: residents of 4.073 houses voted in favor of the demolition, while the residents of over 460 houses stood against it (84% of them were residents of brick five-story buildings, Andreev, 2018).

In the lack of detailed data researchers raised the hypotheses that the opposition to demolition is positively correlated to the socio-economic level of their inhabitants (higher status families more likely rejected the demolition) and it is also linked to the architectural properties of blocks: only half of the brick-walled houses voted for demolition while almost all of the concrete-walled houses (the brick-walled houses are usually associated with better construction properties, like thermal insulation or soundproofing).

In the voting process the different interests of the residents within the same building became evident. Some inhabitants were against the demolition because they bought their flat and renovated it while others, e.g. people living in shared flats (komunalki) or in dilapidated flats in the same house, were in favor of demolition. The high level of support for demolition could be explained by the high share of poor residents who couldn't afford to pay for a renovation (Slavictravels, 2018).

Many people raised concerns regarding the voting process. There was no lower limit for the share of voters, and only in one fifth of the buildings was the decision taken in the form of general meeting of owners. No wonder that many people became disappointed.

> „For the Leskovas, the vote has meant the breakup of the social foundations on which people have built their lives. The peace and harmony of their block has disintegrated. Arguments and shouting matches have broken out. The atmosphere has become hostile. The required meeting of all the residents to decide on the fate of their block never happened; instead, people voted individually and in secret." Leslie- Charley, 2017
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> "The attitude towards people is bestial," she says. "How is it possible to take people and move them to where the authorities want, in high-rise pens with just a patch of greenery in the middle? You cannot treat Moscow and its inhabitants like this. We are not here for the short-term. The city should be built for the comfort of its residents and not developed for the sake of maximising profits at all costs. I'm afraid of the new areas, they are creepy." Leslie-Charley, 2017

Signs of conflicts between residents: windows of residents, who refuse demolition, broken with stones by other residents who favour demolition and would like to leave the building

Source: Iván Tosics (pictures taken in St Petersburg in 2018)

Protests against the demolitions

By announcing the demolition program with an unprecedented sweep and keeping some aspects of its implementation imprecise, the government, while involving the citizens in a new way by organizing votes, has put citizens on hold. This contributed to mass street protests in Moscow: in May 2017 up to 30,000 people demonstrated against the program, which they felt was imposed on them without respecting their private property. In June, dozens were arrested in an unsanctioned protest (Inizan – Coudroy de Lille, 2019).

Protest against the Renovation programme in May 2017 in Moscow

Source: https://meduza.io/feature/2017/08/15/kto-pridumal-renovatsiyu Митинг протеста против сноса домов в Москве, 28 мая 2017 года. Павел Головкин / AP / Scanpix / LETA

"With the protest, we were able to scare the authorities. We got the number of buildings to be razed to about 5,000, down from about 8,500" said Galyamina, who is also coordinator of a volunteer project organizing against the residential renovation program. In part, thanks to her efforts, the law on the residential renovation program has been changed to allow residents to fight it in court (Arutunyan, 2017).

According to Andreev (2018) the renovation law adopted in early June 2017 contained important points, which had been absent in its initial variant.

- The list of the houses subject to eviction may only include the buildings constructed in 1957-1968 and not exceeding 9 stories.
- New flats provided to the rehoused citizens should be of the same value as the old ones.
- At least 2/3 of the residents of the houses subject to eviction should express their consent to rehouse at the residents' meetings.
- The new buildings will be provided with modern utilities, transportation, and social infrastructure.

Andreev points out that the State Duma has formed a cross-faction committee aimed at control over the legitimacy of the Moscow administration activities on the renovation program implementation.

Political debate of the legal regulation

A bill regulating the resettling procedures was submitted to the Russian State Duma (lower house) in early March and passed in third reading on June 14. On July 1, 2017, President Putin signed the amendments to the law on Moscow's status as the capital city and thereby endorsed its housing renovation program. The draft law received 399 supportive votes and two votes against the bill, one deputy refrained from voting. The renovation bill has been substantially revised since its adoption on first reading, as the majority of over 130 amendments submitted from deputies and the government ahead of its second (main) reading were adopted (TASS, 2017 June 14).

Alternative conceptual frameworks to evaluate the demolition programme

It is not easy to evaluate the Moscow 'Renovation' programme: it has clearly controversial aspects which are either pro or against the mass demolitions. On the one hand the increase of urban density, after the demolitions of lower rise buildings, would contribute to the sustainability of urban areas, reducing transport needs, and also the energy efficiency of buildings would improve with the newly constructed high-rise buildings. Contrary to that, the quality of life, the accessibility to green infrastructure would deteriorate in the resulting denser urban areas and the mass demolitions would be against the preservation of historic values. Serious questions can be raised regarding the handling of private ownership of housing: the voting process terminates the freedom of residents making decisions about their flat which is their private property.

There are many experts who question the basic statement of the mayor that the Khrushchevka flats are beyond redemption and renovation would not be feasible. There are undoubtedly problems with some of the older flats, the quality of buildings is variable. However, the faults could be remedied without prohibitive expense. Professors at the prestigious Moscow Academy of Architecture such as Yuri Pavlovich Volchok and architect Evgeny Asse have said that with intelligent design many of the blocks can be given a new lease of life; structural engineer Sofia Pechorskaya notes that the planning

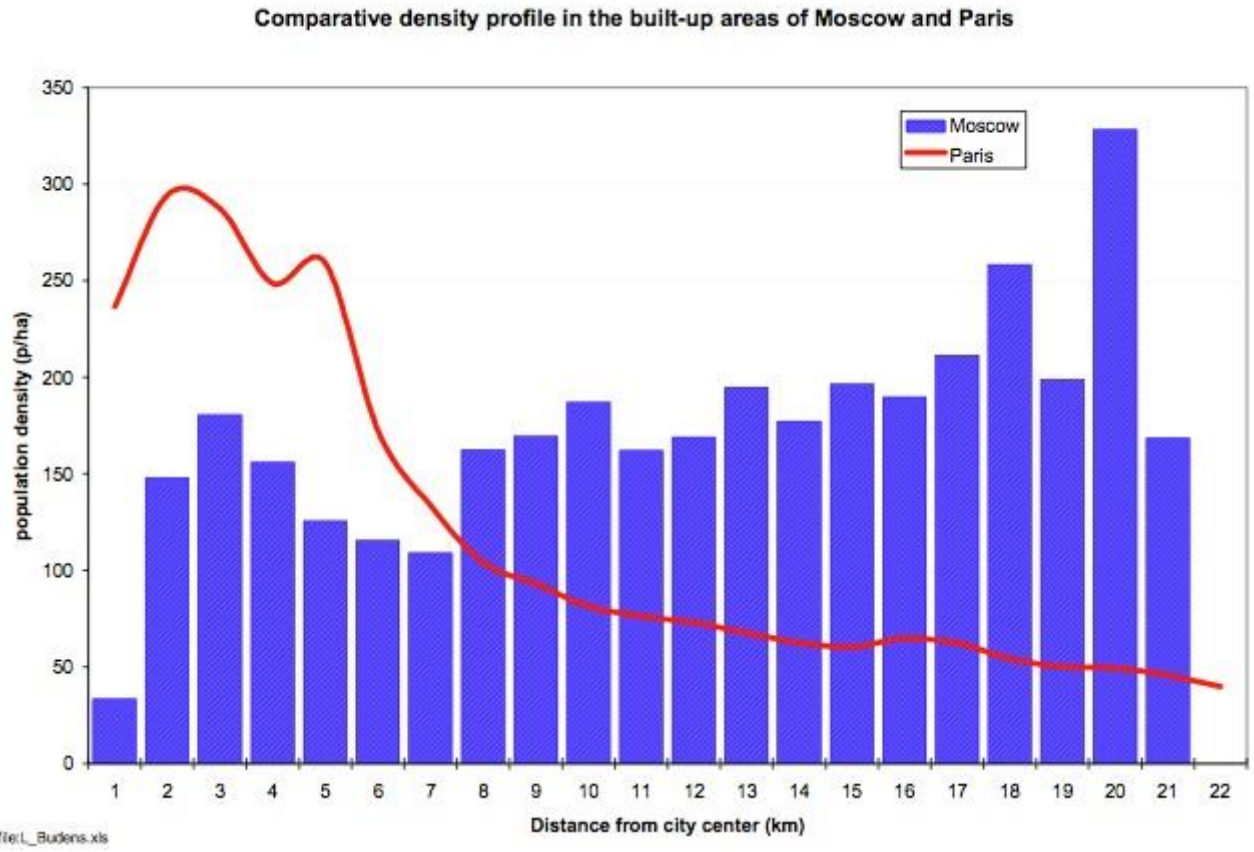
process has been carried out without proper research and professional consultation (Leslie- Charley, 2017).

The khrushchevkas are located on some of the best land in the city, they are the greenest neighborhoods of Moscow. As the most dilapidated Khrushchevka buildings in Moscow have already been torn down, the new demolition programme can be considered as an attack on low population density. “The argument that they are in bad condition structurally is not convincing, especially since there are massive projects to reconstruct Khrushchevka buildings in eastern Europe … there are many methods of how to deal with ageing prefabricated housing and of course tearing it down and building a new tower is not the best one.” (Luhn, 2017)

If not the bad physical conditions of the buildings or the concentration of low income population groups are behind the large-scale demolition programme, there must be other motivations in the background. Two theoretical approaches can be identified with different views on reasons for the demolition programme of the khrushchevkas.

The ’density gradients’ view: to increase density closer to the city centre

Robert Buckley, Senior Fellow in the Graduate Program in International Affairs at The New School, US analyses the morphology of Russian cities in terms of population density gradients (Besova, 2018). Most Western European cities have negative density gradients as population density decreases very quickly as we move out from the city centre, while Eastern European cities have ‘milder intermediate slopes’ with a more gradual decrease. The morphology of Russian cities is quite unusual by comparison, with Moscow as the extreme, having a positive gradient, as population density increases towards the outskirts (for more detailed analysis see Bertaud – Renaud, 1994).



Source: https://marroninstitute.nyu.edu/blog/urban-density-under-communism

According to Professor Buckley, deviation from the standard 'negative gradient' pattern represents economic inefficiency. He posits that in countries with market economy or even in former Soviet block countries with somewhat lax control, the market forces inevitably led to the emergence of negative gradient pattern, whereas the strict command economy in the Soviet Union did not allow for spatial optimization because the regime didn't pay attention to land costs.

The problems of the Moscow pattern include the inability to repurpose more convenient sites, leads to greenfield construction rather than repurposing closer-to-the centre sites which would lead to reduced mobility across cities. What's more important, it leads to the lack of land supply for housing, as it is difficult to reconfigure existing non-optimal uses. As a result, prices increase and it becomes difficult for people to afford housing. This impedes locational productivity because people cannot move to a place with high productivity.

Along the lines of this theory higher efficiency would need moving to market-based spatial allocation, making the (negative) gradients steeper. This would mean the replacement of the relatively low density khrushchevka areas with higher density housing, especially in the more centrally located neighbourhoods of Moscow – as the Renovation programme suggests.

Demolition motivated by bureaucracy-dependent profit seeking

A totally different view is represented by Oleg Golubchikov and Irina Ilina: the potential motivation behind Moscow's Renovatsiya policy is bureaucracy-dependent profit seeking through concentrated interventions (Golubchikov – Ilina, 2018). The state-croporatist growth machine identifies large urban projects as the leading aspect of urban development – the large scale demolition programme of Moscow perfectly fits to such a strategy. This is the way how land for new construction can be assured for developers to build on. The alternative would be to give subsidies for renovation, which however, would not lead to accumulation/concentration of profit. Thus, instead of carrying out normal renovations of khrushchevkas, the city will simply raze entire districts and the land will get freed up for developers (Slavictravels, 2018).

Part of the game is the fact that the building sector is one of the most profitable businesses in the Russian capital, and a handful of urban developers made a fortune. Transparency International released a report on the renovation plan, arguing that implementation of this plan is designed to further enrich the "old guard" of developers, who formed a consortium to compete for the lucrative contracts the city offered. The report details these developers, adding that "the composition of this consortium allows one to draw interesting conclusions" (Steiner, 2018).

Conclusion

If we put together the (scarce) figures about the Moscow plans to eradicate all Khrushchev era housing, we could come up with a total number of 350 thousand flats to be demolished and new constructions which largely surpass the cost of 3,3 billion USD (which does not include the unknown costs of the 1999-2018 Moscow Government program).

Golubchikov and Ilina (2018) compare these figures, on the basis of Guardian articles, to the biggest urban demolition programmes of the world. These include the redevelopment of urban villages in China (in 2017 alone demolition of 6 million flats with USD 280 bn cost) and the regeneration of areas under the 2012 disaster risk law in Turkey, which includes the demolition of 6-7 million homes with a cost of 4-500 billion USD over 20 years. These programmes are labelled by the followers of critical geography as growth machine politics serving real estate interests, leading to mass evictions, destruction of social ecosystems, and increase in inequalities.

All the three examples are coming from countries which are outside the Western democratic traditions. However, similar thinking is also present (although on smaller scale) in Western democracies in the form of state-led urbanism. There are many examples in the US, UK and other western capitalist countries on large urban projects becoming the leading aspect of urban development, with no or little respect on heritage and social justice considerations.

> An example from London: in the case of the Aylesbury estate with 2,700 homes (two miles from the Houses of Parliament) in order to move forward with the demolition of the existing buildings, the council had to buy out the residents who had previously bought their homes from the council under the right-to-buy policy. In theory, people facing compulsory purchase must be given the market value of their homes. But local authorities usually compensate leaseholders based on the average value of homes on the estate to be demolished, which is far away from the average value of homes in the wider area – in the case of London the compensation payment is below half of the average value of similar flats in the city. With that residents are compelled to leave the area (or even London) while the developer gains huge profit (Turner, 2016).

What can be said then about large-scale urban re-development programmes? How could they be done in a much better (i.e. more sustainable, more inclusive) way than the state-dictated mass eradication of earlier built housing in China and Turkey; or the state-led urbanism in western cities?

Without being able to give a full answer on this question, let us try to list some important points. First: there is a need for a clear social vision for the regeneration programme. In this regard the French 'Rénovation urbaine' (2004-2020) policy can be mentioned, aiming for the demolition of 250,000 dwellings, building new housing in the same amount and revitalizing 400,000 units. A major difference with the Russian situation is that the physical demolition of parts of cities in France is supposed to resolve social problems of urban segregation by bringing back social diversity (mixité) in these districts, in other words, demolition should help to "break ghettos" and the renovation is supposed to act as a "remedy to the social issue" and solve social inequalities. Contrary to that, in Moscow the social issue is almost absent of the aims of the program which only concentrates on physical parameters (Inizan – Coudroy de Lille, 2019).

The second important point is the role of inhabitants in the decision-making about the regeneration. In the Moscow case the involvement of the inhabitants in the process can hardly be qualified as real 'participation', not even as it is discussed in the French case (which is also questioned, being far from any ideal, see Inizan – Coudroy de Lille, 2019). This becomes even more interesting if we consider that the subjects of demolition are owners in the case of Moscow, while they are predominantly public tenants in the French case. To use online platforms, provided that these are not censored, is a step forward in getting in touch with the residents. However, to include all population groups, even low-income people living in peripheral housing estates, online tools should be complemented with local workshops, roundtables and community-building programs – not existing at all in Moscow.

It is not easy to launch large-scale urban re-development programmes in sustainable and inclusive way. Government institutions leading such programmes have to reach a good level of trust from the side of the society. This can only be achieved in dialogues with all affected stakeholders, involving also broad groups of experts, to be able to make informed decisions for the sake of all. Furthermore, total transparency in financial matters and public private relationships is also needed, to avoid all the traps of state-led urban entrpreneuralism. To achieve all that strong political and civic control over the processes is indispenseable, raising time-to-time the questions about the costs of the programmes and analysing who are the beneficiaries and who are the losers.

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