



# **Can transition be just without addressing energy poverty?**

## **A case study of Silesia (Poland)**

Energy poverty in the just transition  
policy and the Just Transition Fund support scheme

Report commissioned by FEANTSA, written by Cezary Czemplik,  
Katarzyna Przybylska (Habitat for Humanity Poland),  
August 2020

# Can transition be just without addressing energy poverty? A case study of Silesia (Poland)

- *energy poverty in the just transition policy and the Just Transition Fund support scheme*

## Table of contents

## Contents

<b>Can transition be just without addressing energy poverty? A case study of Silesia (Poland)</b> .....	1
<b>1. Introduction</b> .....	1
<b>2. The housing situation and energy poverty in Silesia</b> .....	1
<b>a. The housing situation in Silesia compared to the country as a whole</b> .....	1
<b>b. Energy poverty in Silesia compared to the country as a whole</b> .....	3
<b>c. Heat source replacement and thermal upgrading – state of play and challenges</b>	7
<b>d. Summary</b> .....	10
<b>3. How to ensure just transition – the need to address housing and energy poverty</b>	10
<b>a. Recommendations to the Just Transition Fund</b> .....	11
<b>b. Taking advantage of the remaining pillars of the Just Transition Mechanism</b> ....	13
<b>4. Just transition - conclusions</b> .....	13

### 1. Introduction

The aim of the present study is to outline the overall situation in Poland and Silesia (i.e. the region which is to become one of the major beneficiaries of the Just Transition Fund, hereafter JTF). Particular focus has been placed on housing-related issues as well as the topic of energy poverty. This is to see if the scope of support envisaged within the JTF will meet actual needs. The final part of the study encompasses a series of recommendations which, if taken into account, will help design transition that will address a broader set of social needs. The ultimate goal being a transition which is, indeed, just.

### 2. The housing situation and energy poverty in Silesia

#### a. The housing situation in Silesia compared to the country as a whole

In Poland, there are on average 386 flats per 1000 residents, which represents the second-worst housing deficit in the European Union. This statistical housing deficit (i.e. the gap between the number of households and the number of inhabited flats) amounts to a shortage of 641,000 flats (at the end of 2019), while around 4.5% of all households (around 1.7 million people) co-habit one flat together with other households. At the same time, the number of

uninhabited flats (e.g. investment properties, holiday properties and abandoned properties in uninviting locations) keeps growing.<sup>1</sup>

In terms of ownership structure, 84% of people own their flats. 16% of people rent flats, (11.7% rent municipal flats and housing association flats ('TBS'), and 4.3% rent on the private market. The private rental market is dominated by one pattern, i.e. renting to and from natural persons. It is noteworthy that in rented flats, overcrowding is significant. Data from 2018 showed overcrowding to be as high as 63.9% in municipal and housing association flats, while the figure for the private rental market was 64.8%.<sup>2</sup>

Polish housing largely consists of single-family buildings, which make up 80% of all urban buildings, and around 97% of all rural ones. An average of 59% of the whole housing stock is part of multi-family buildings (i.e. ones that contain more than two flats). As much as 72% of the entire urban population live in multi-apartment buildings (counter to rural areas, where the corresponding figure is just 12%).<sup>3</sup>

The fact that a significant proportion of Poland's flats are substandard poses a great challenge for the country. According to the 2011 census, 10.6% of all flats were substandard, and they were inhabited by 14% of the population. Of the substandard flats, (i) over 24% of flats are in buildings with poor technical conditions, (ii) almost 40% of flats have insufficient amenities, and (iii) nearly 42% of all flats are overcrowded.<sup>4</sup>

Most Silesian housing units (67%) are located in multi-family buildings.<sup>5</sup> A high percentage of flats belong to housing associations<sup>6</sup>, which constitute as much as 38% of the Silesian housing stock. <sup>7</sup> Privately-owned flats represent 36% of the entire housing stock, while municipal flats represent 20%. Importantly, current demand for municipal flats exceeds available stock: a total of 31,900 households were on the waiting list for a municipally-owned property in 2011.<sup>8</sup>

Another feature of Silesia's housing stock is that it is largely urban, due to the region's particularly high urbanisation rate. Of the region's entire housing stock, 81.5% of units (and 74% of surface area) are located within the city space.

---

<sup>1</sup> Ministerstwo Rozwoju [Ministry of Development], Raport Stan Mieszkalnictwa, March 2020, <https://www.gov.pl/attachment/26de9999-aa40-42c0-9396-74d3e2684a14> (retrieved: August 2020).

<sup>2</sup> Ibid.

<sup>3</sup> Główny Urząd Statystyczny [Central Statistical Office of Poland], Zamieszkane budynki. Narodowy Spis Powszechny Ludności i Mieszkań 2011, [https://stat.gov.pl/download/cps/rde/xbcr/gus/L\\_zamieszk\\_budynki\\_nsp\\_2011.pdf](https://stat.gov.pl/download/cps/rde/xbcr/gus/L_zamieszk_budynki_nsp_2011.pdf) (retrieved: August 2020).

<sup>4</sup> Ministerstwo Rozwoju [Ministry of Development], Raport Stan Mieszkalnictwa, March 2020, <https://www.gov.pl/attachment/26de9999-aa40-42c0-9396-74d3e2684a14> (retrieved: August 2020).

<sup>5</sup> FUNDEKO Korbel, Krok-Baściuk Sp.J., Wsparcie Działań Dotyczących Ochrony Powietrza i Ograniczania Ubóstwa Energetycznego w Ramach Regionalnego Programu Operacyjnego Województwa Śląskiego, Raport końcowy z badania ewaluacyjnego, [https://www.ewaluacja.gov.pl/media/83730/Wsparcie\\_UbostwoEnergSlaskie.pdf](https://www.ewaluacja.gov.pl/media/83730/Wsparcie_UbostwoEnergSlaskie.pdf) (retrieved: August 2020).

<sup>6</sup> Housing societies are a type of enterprise, with legal personality, that serve to develop and manage housing stock. They are strictly structured and formalised entities whose task is to meet the housing needs of their members, which includes the construction and sales (on slightly different terms) of flats to their members. They are considered a slightly obsolete organisation form; the provisions which orchestrate their operation (developed in the 1980s) have not been a matter of ongoing review and up-dating which would make them suited to the ever-changing environment.

<sup>7</sup> Urząd Statystyczny w Katowicach [Statistical Office in Katowice], Śląski Ośrodek Badań Regionalnych, Gospodarka mieszkaniowa w województwie śląskim w latach 2016-2018, [https://katowice.stat.gov.pl/download/gfx/katowice/pl/defaultaktualnosci/842/2/4/1/gospodarka\\_mieszkaniowa\\_calosc.pdf](https://katowice.stat.gov.pl/download/gfx/katowice/pl/defaultaktualnosci/842/2/4/1/gospodarka_mieszkaniowa_calosc.pdf) (retrieved: August 2020).

<sup>8</sup> Ibid.

Occupants of flats in Silesia also have high levels of debt. Rental fees include heating costs as well as costs of water supply (hot and cold). **Towards the end of 2018 the total amount of rent arrears was equivalent to PLN 1471.7 million (around EUR 335.1 million), up 38% on 2016's figures.** Nearly 68% of all arrears were on municipal flats, while about 13% were on flats owned by housing cooperatives.<sup>9</sup>

**Tablica 12. Wysokość zaległości w opłatach za mieszkanie według form własności**  
 Stan w dniu 31 grudnia  
**Table 12. Amount of arrears in payments for dwelling by forms of ownership**  
 As of 31st December

Wyszczególnienie Specification	Wysokość zaległości Amount of arrears		Przeciętna wysokość zaległości przypadająca na 1 mieszkanie Average amount of arrears per dwelling	
	2016	2018	2016	2018
	w tys. zł in PLN thousand		w zł in PLN	
Komunalne Municipal	527696,9	999995,7	5895	12263
Spółdzielni mieszkaniowych Housing cooperatives	264374,0	190573,4	1785	1332
Zakładów pracy Companies	187607,3	168931,7	10939	10841
Skarbu Państwa State Treasury	1347,1	1123,5	5201	5646
Towarzystw budownictwa społecznego Public building societies	4031,3	4942,6	1173	1574
Osób fizycznych w budynkach objętych wspólnotami miesz- kaniowymi Natural persons in buildings covered by housing condomini- ums	80478,2	95629,3	1722	2025
Innych podmiotów Other entities	263,1	10530,2	2554	15195

Source: *Gospodarka mieszkaniowa w województwie śląskim w latach 2016-2018*<sup>10</sup>

When investigating the living conditions of Silesian residents, it is also imperative to note the region's extremely poor air quality. According to WHO data from 2018, 36 out of 50 PM<sub>2.5</sub> polluted European cities were Polish, and 13 of these 36 were in Silesia.<sup>11</sup> Interestingly, the cities in question (e.g. Żywiec or Rybnik) do not have coal mines (and were not considered within the Just Transition Fund). Instead, they have industrial plants, coal being a fuel in district heating systems as well as in boilers in individual households.

## b. Energy poverty in Silesia compared to the country as a whole

The phenomenon of energy poverty in Poland has not been acknowledged and embedded within the schemes of social assistance at country or regional level. This is in spite of numerous in-depth studies by experts (e.g. from the Institute for Structural Research, IBS) on the basis of statistical data (these studies are now being complemented by field research). It is assumed that the term 'household affected by energy poverty' means a household that finds it difficult to meet its energy needs (which encompass the consumption of electricity and heat), a situation that is due to low income and the flat's energy characteristics.<sup>12</sup> A current issue in

<sup>9</sup> Ibid.

<sup>10</sup> Ibid.

<sup>11</sup> Cf. Polska Zielona Sieć, Sprawiedliwa transformacja Śląska. Wyzwania z perspektywy społecznej – analiza i rekomendacje <http://zielonasiec.pl/wp-content/uploads/Sprawiedliwa-transformacja-%C5%9A%C4%85ska-analiza.pdf> (retrieved: August 2020).

<sup>12</sup> Instytut Badań Strukturalnych [Institute for Structural Research], Ubóstwo energetyczne w Polsce 2012 – 2016, Zmiany w czasie i charakterystyka zjawiska,

research is the fact that beneficiaries of support are difficult to categorise, as it is not mandatory for the residents to present a certificate of the building's energy performance. Another issue lies in matching affected residents' sensitive data with the running costs and the cost of modernising housing. This is why, other factors aside, the term 'energy poverty' has not yet gained legal status. Furthermore, the overall approach towards energy poverty lacks concrete parameters, with regard to the existing thermal upgrading support schemes, smog combatting programmes, and, in broader terms, the social assistance mechanisms.

**12.2% of Poles, i.e. 4.6 million people (or 1.3 million households) fall within the group affected by energy poverty** (as of 2016).<sup>13</sup> People living in energy poverty primarily live in rural areas (20%), then towns with a population up to 20,000 (12%), followed by cities with 100,000-199,000 residents (8%). For the country as a whole, the vast majority of people living in energy poverty inhabit single-family houses (including terraced and semi-detached houses) at 75%, with only 25% living in multi-family buildings. Almost half of the latter group consists of residents of pre-war tenements (40%).<sup>14</sup>

**Energy poverty within Silesia, at 6.2%, is lower than average for Poland.** Yet when people in Silesia were asked to subjectively assess their own level of energy poverty, the rate was closer to 13.5%.<sup>15</sup> According to the FundEko report, Silesian local authorities do acknowledge the existence of energy poverty, yet as of now, it has remained unaddressed. None of the authorities mentioned or any other local institutions have dealt with this issue.<sup>16</sup>

Adding to the analysis of energy poverty in Silesia, it must be highlighted that **the minimum income in mining is higher than the average minimum income for Poland as a whole.** Hence, although energy poverty does affect people working in the mining industry, it affects them at a lower rate than those on a lower pay scale. . Nonetheless, it does affect workers who have had to change their profession, for reasons of poor health or unemployment, before they reached retirement age. So, in the context of Silesian transition, which involves cuts in coal production, energy poverty is very likely to rise. One must not forget that miners and miners' families had been entitled to free coal supplies (a part of their remuneration in kind). This

---

[https://ibs.org.pl/app/uploads/2018/02/IBS\\_Brief\\_Report\\_Ub%C3%B3stwo\\_energetyczne\\_w\\_Polsce\\_2012-2016.pdf](https://ibs.org.pl/app/uploads/2018/02/IBS_Brief_Report_Ub%C3%B3stwo_energetyczne_w_Polsce_2012-2016.pdf) (retrieved: August 2020).

<sup>13</sup> Ibid.

<sup>14</sup> Ibid.

<sup>15</sup> Ibid.

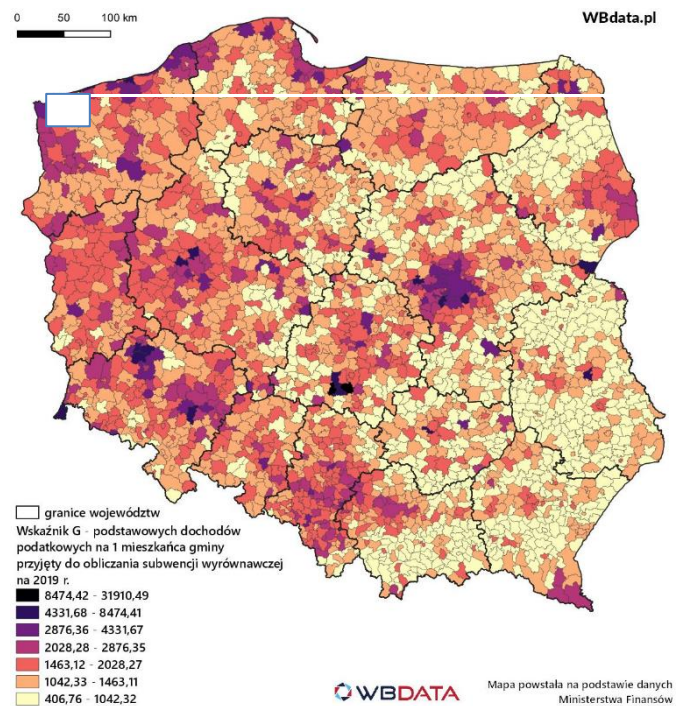
<sup>16</sup> FUNDEKO Korbel, Krok-Baściuk Sp.J., Wsparcie Działań Dotyczących Ochrony Powietrza i Ograniczania Ubóstwa Energetycznego w Ramach Regionalnego Programu Operacyjnego Województwa Śląskiego, Raport końcowy z badania ewaluacyjnego, [https://www.ewaluacja.gov.pl/media/83730/Wsparcie\\_UbostwoEnergSlaskie.pdf](https://www.ewaluacja.gov.pl/media/83730/Wsparcie_UbostwoEnergSlaskie.pdf) (retrieved: August 2020).

ensured access to a free heat source, which was intended to protect miners from energy poverty.

However, bearing in mind the information from section a above concerning:

- the ownership structures of flats in Silesia (a significant share of municipal flats, flats owned by housing societies or housing associations that have inherited their property rights from cooperatives), as well as
- an accrued debt in housing fees (e.g. the **average debt** from housing fees per municipal flat in the Silesian Voivodeship amounts to PLN 12,263, equivalent to around EUR 2,800<sup>17</sup>),

there is a reasonable likelihood that there is **hidden energy poverty in Silesia**. Housing fees include charges for heating (supplied from an estate's boiler house or from a district system) and hot water. If debt accumulates in housing fees, it *de facto* means debt in charges for heat, thus the lack of necessary financial means to be able to cover these costs. At the end of 2018, 291,500 flats were in arrears.<sup>18</sup>



One interesting field of research field is municipal flats within the Upper Silesian Industrial Region, GOP (an area that incorporates the central-eastern part of the Silesian Voivodeship together with the western part of the Lesser Poland Voivodeship; it is the largest industrial region in Poland). Residential areas with coal mines have a significantly higher debt ratio in housing fees than the national average. For example, in the Pszczyna district or in the city of Dąbrowa Górnicza, the debt ratio is three times higher than average whereas in Bytom and Mysłowice, it is two times higher. Such a high level of debt translates into scarcer financial means on the part of local authorities which would otherwise run thermal upgrading works (an endeavour that would reduce heating costs, and, as a consequence, help reduce household bills). Two issues point to a problem of hidden energy poverty – the high maintenance costs for multi-family stock and the low number of residents entitled to housing allowance (5.8% in the Silesian Voivodeship<sup>19</sup>). These issues also highlight a gap in thermal upgrading advancement for multi-family housing.

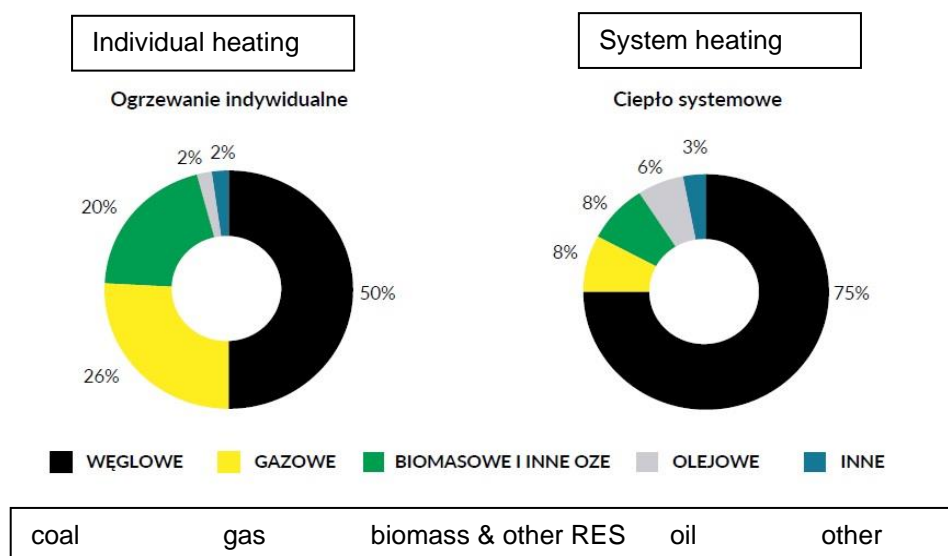
With this in mind, it is clear that to alleviate energy poverty and to ensure a shift away from coal production (which would go hand-in-hand with a just transition in Poland), it is **vital that the heating sector is addressed**. The Polish district heating network is, to a remarkable

<sup>17</sup> Urząd Statystyczny w Katowicach [Statistical Office in Katowice], Śląski Ośrodek Badań Regionalnych, Gospodarka mieszkaniowa w województwie śląskim w latach 2016-2018, [https://katowice.stat.gov.pl/download/gfx/katowice/pl/defaultaktualnosci/842/2/4/1/gospodarka\\_mieszkaniowa\\_cal\\_osc.pdf](https://katowice.stat.gov.pl/download/gfx/katowice/pl/defaultaktualnosci/842/2/4/1/gospodarka_mieszkaniowa_cal_osc.pdf) (retrieved: August 2020).

<sup>18</sup> Ibid.

<sup>19</sup> Ibid.

degree, based on solid fuels. This industry emits 68 million tonnes of CO<sub>2</sub> a year, consuming 26 million tonnes of steam coal, and using a 21,400km long network. In Poland, 80% of the total heating system is inefficient. Needless to say, 87% of the coal used in household fuel combustion in Europe is used in Poland.<sup>20</sup> The gravity of this situation is not acknowledged in Europe or in Poland.



Structure of energy consumption in buildings heated from individual sources and district heating. Source: Forum Energii<sup>21</sup>

As a benchmark, 26 million tonnes of coal are used per annum in the entire heating sector (only 5 million less than the energy sector). As of 2016, households were responsible for 66.4% of building emissions, with the construction sector responsible for 16.8% of the fossil fuel emissions (not including households with connection to district heating).<sup>22</sup> In absolute values:

- 32 million tonnes of CO<sub>2</sub> emissions from individual buildings,
- 38 million tonnes of CO<sub>2</sub> emissions from district heating networks.

Households with independent heat sources are not taken into consideration when calculating CO<sub>2</sub> emissions, which are for example subject to the EU Emissions Trading System (EU ETS).

<sup>20</sup> Forum Energii, Ciepłownictwo w Polsce. Edycja 2019, <https://forum-energii.eu/public/upload/articles/files/Ciep%C5%82ownictwo%20w%20Polsce.%20Edycja%202019.pdf> (retrieved: August 2020).

<sup>21</sup> <https://www.forum-energii.eu/pl/blog/czyste-cieplo-2030-koszty-i-korzysci> (retrieved: August 2020).

<sup>22</sup> Instytut Ochrony Środowiska – Państwowy Instytut Badawczy [Institute of Environmental Protection – National Research Institute], Klimat dla Polski. Polska dla klimatu, [https://cop24.gov.pl/fileadmin/user\\_upload/files/1.\\_Klimat-dla-Polski-Polska-dla-Klimatu\\_PL.pdf](https://cop24.gov.pl/fileadmin/user_upload/files/1._Klimat-dla-Polski-Polska-dla-Klimatu_PL.pdf) (retrieved: August 2020).

### c. Heat source replacement and thermal upgrading – state of play and challenges

Major challenges lie ahead for Poland in the area of energy poverty and housing, namely (i) the replacement of heat sources in single-family houses, multi-apartment buildings and in flats fitted with an independent heat source, as well as (ii) thermal upgrading of residential buildings.

As shown in the studies carried out by the Institute for Structural Research (IBS), **thermal upgrading campaigns are deemed the most effective way of alleviating energy poverty.** They are nonetheless the most costly endeavours.<sup>23</sup>

In Poland, only 31% of multi-family buildings do not require thermal upgrading operations to be rolled out. More than 9% of multi-family buildings that do require thermal upgrading, are already in the planning or works stage. For 30% of buildings requiring thermal upgrade, the operation has not for now been considered.

<b>BUILDINGS</b>	<b>%</b>
buildings that were energy efficiently modernized before 2010	18.9
buildings that were energy efficiently modernized 2010-2016	10.8
buildings that require energy efficiency modernization and it is planned / already started	9.4
<b>buildings that require energy efficiency modernization but it is not planned</b>	<b>29.9</b>
buildings that do not require energy efficiency modernization	31

*Structure of multi-apartment buildings with reference to thermal modernisation as of the end of 2016.*

*Source: Ministerstwo Rozwoju [Ministry of Development], Raport Stan Mieszkalnictwa, March 2020<sup>24</sup>*

The most common thermal upgrading works in 2010-2016 included *inter alia* (i) insulation of external walls (93%), (ii) roof / ceiling insulation (51%), (iii) the replacement of external doors (almost 46%), and (iv) the replacement of windows and balcony doors (36.5%). Modernising or replacing a heat source was among the rarest interventions, accounting only for 12.5% of all works.<sup>25</sup>

Thermal upgrading works in multi-family buildings are especially difficult to conduct as such buildings have a very particular ownership structure:

- By and large, the owners of flats are also owners of a fraction of common areas within the property, which impedes decision-making and any organisation efforts.
- Similar problems apply to multi-family buildings co-owned by local authorities (when some are municipal flats).
- Additionally, attention should be paid to pre-war tenements (inhabited by some 40% of residents of multi-family buildings who live in energy poverty), which are supervised by a monuments conservation office, and therefore have to abide by extra restrictions and rules pertaining to renovation works.

<sup>23</sup> Instytut Badań Strukturalnych [Institute for Structural Research], Zjawisko ubóstwa energetycznego w Polsce, w tym ze szczególnym uwzględnieniem zamieszkujących w domach jednorodzinnych, [https://ibs.org.pl/app/uploads/2018/06/IBS\\_Research\\_Report\\_02\\_2018\\_pl.pdf](https://ibs.org.pl/app/uploads/2018/06/IBS_Research_Report_02_2018_pl.pdf) (retrieved: August 2020).

<sup>24</sup> Ministerstwo Rozwoju [Ministry of Development], Raport Stan Mieszkalnictwa, March 2020, <https://www.gov.pl/attachment/26de9999-aa40-42c0-9396-74d3e2684a14> (retrieved: August 2020).

<sup>25</sup> Ibid.



- Multi-family buildings owned entirely by local authorities (municipalities) are not carrying out the relevant renovations / thermal upgrading for reasons of cost.

When discussing the topic of thermal upgrading, the above-mentioned transition in heating must be considered. Here, too, there is a need for works, namely the replacement of heat sources and thermal upgrading. Estimates show the total cost of adapting buildings to zero-emission standards will have amounted to PLN 558 billion (around EUR 127.3 billion) by 2030. It includes, *inter alia*, PLN 83 billion (around EUR 19 billion) earmarked for the thermal upgrading of buildings heated from the district network as well as PLN 169 billion (around EUR 38.5 billion) for the thermal upgrading of buildings heated by individual boilers.<sup>26</sup>

As regards replacing heat sources, estimates suggest that 470,000 solid-fuel heat sources in single-family houses need to be decommissioned or replaced in Silesia. Of concern is the substantial stock of flats with individual heat sources within multi-apartment buildings in the region. Support mechanisms that could incentivise replacement of such sources are rare and require a comprehensive overhaul.<sup>27 28</sup>

Programmes for heat source replacement and thermal upgrading, as well as other support schemes which have been put in place in Poland, fail to address a number of further issues. Since they are climate-driven: meant to fight air pollution and abate CO<sub>2</sub> emissions, they tend to overlook the living conditions in individual households from the perspective of energy poverty. In particular, it is **the most disadvantaged groups who get systemically excluded from the support mechanisms**. For example, it is important to note the situation of people who cannot access credit: around 38.1% of the entire population have income below PLN 1,000 (around EUR 230) per family member, which makes them ineligible for a loan. This demonstrates the scale of the problem which shifting towards zero-emission energy sources will surely become for society.

Noteworthy programmes and schemes already operating in Poland are:

- Clean Air Programme: a Polish national programme set to boost air quality and reduce emissions of greenhouse gases. The programme envisions the replacement of heat sources and the improvement of energy efficiency of residential buildings. It is aimed at property owners or co-owners in single-family residential buildings or flats sectioned out from single-family houses. The scheme provides grants of up to PLN 30,000 (almost EUR 7,000), while higher support groups (i.e. people whose financial situation is more precarious) may be subsidised up to PLN 37,000 (almost EUR 8,500).<sup>29</sup> Since beneficiaries' own contribution is mandatory, some households with lower incomes are

<sup>26</sup> Polski Instytut Ekonomiczny [Polish Economic Institute], Czas na Ciepłownictwo, <https://pie.net.pl/wp-content/uploads/2020/02/PIE-Ciep%C5%82ownictwo.pdf> (retrieved: August 2020).

<sup>27</sup> FUNDEKO Korbel, Krok-Baściuk Sp.J., Wsparcie Działań Dotyczących Ochrony Powietrza i Ograniczania Ubóstwa Energetycznego w Ramach Regionalnego Programu Operacyjnego Województwa Śląskiego, Raport końcowy z badania ewaluacyjnego, [https://www.ewaluacja.gov.pl/media/83730/Wsparcie\\_UbostwoEnergSlaskie.pdf](https://www.ewaluacja.gov.pl/media/83730/Wsparcie_UbostwoEnergSlaskie.pdf) (retrieved: August 2020).

<sup>28</sup> The costs of energy transition have been transferred to heat distribution operators. It is a problem which in 2019 already hit small local heating plants in Poland, included in the EU Emissions Trading System. The costs of emission allowances grew by a factor of four, which hampered investments in heat source transition and the transition of transmission grids; the investments were also made dependent on funds to be granted from the state budget or the EU.

<sup>29</sup> <http://czystepowietrze.gov.pl/wez-dofinansowanie/> (retrieved: August 2020).

systemically excluded from assistance. The higher support category still fails to embrace all potential programme beneficiaries.

As the programme has been operational for one year in Silesia, the replacement of 6,500 boilers is already planned (equivalent to 1.3% of the evident demand).<sup>30</sup>

- Stop Smog Programme: a government-run pilot programme aiming to bridge the gap in support schemes, which would be accessible to the – usually ineligible – poor. The scale is small since the programme only targets the most polluted cities in Poland (according to estimates, 2.8% of single-family households living in energy poverty).<sup>31</sup>
- Local protection schemes: voluntary mechanisms operating at local level that focus on granting a special allowance to cover the heating costs, which tend to rise upon heat source replacement. An example being the city of Kraków (Lesser Poland Voivodeship), which has implemented this scheme using EU funds.

No local protection scheme has been implemented in any Silesian municipalities. In fact, Silesian local authorities often mistake such schemes for a housing allowance or an energy benefit.<sup>32</sup>

Other instruments in place within the Polish system are by no means effective when it comes to mitigating energy poverty. These are tools which address the poor, e.g. (i) a purpose-specific benefit granted to low-income residents, (and includes provision for fuel)<sup>33</sup> (ii) a housing allowance, i.e. provision granted for flat-related costs, including fuel, (iii) an energy allowance which is accompanies a housing allowance as a reimbursement for electricity costs.

The value of housing and energy allowances is too small to provide tangible support. Depending on the number of household members, an energy allowance ranges between PLN 11.37 (EUR 2.60) and PLN 18.96 (EUR 4.30) per month. Moreover, as studies by the Institute for Structural Research show, these provisions fail to target the energy poverty groups. Only 1.3% of all beneficiaries of the housing allowance alone (without an energy allowance) live in energy poverty. Concerning the group of people benefitting from both allowances, only 6.9% live in energy poverty.<sup>34</sup> It is worth mentioning that the square metres-based criterion excludes most households within single-family buildings from the support scheme (which happen to be the households most affected by energy poverty).<sup>35</sup>

---

<sup>30</sup> FUNDEKO Korbel, Krok-Baściuk Sp.J., Wsparcie Działań Dotyczących Ochrony Powietrza i Ograniczania Ubóstwa Energetycznego w Ramach Regionalnego Programu Operacyjnego Województwa Śląskiego, Raport końcowy z badania ewaluacyjnego, [https://www.ewaluacja.gov.pl/media/83730/Wsparcie\\_UbostwoEnergSlaskie.pdf](https://www.ewaluacja.gov.pl/media/83730/Wsparcie_UbostwoEnergSlaskie.pdf) (retrieved: August 2020).

<sup>31</sup> Ibid.

<sup>32</sup> Ibid.

<sup>33</sup> Specific-purpose benefits are granted to people on very low incomes, but in practice there are instances in which households in energy poverty exceed the income threshold and therefore may not obtain the benefit. Cf. FUNDEKO Korbel, Krok-Baściuk Sp.J., Wsparcie Działań Dotyczących Ochrony Powietrza i Ograniczania Ubóstwa Energetycznego w Ramach Regionalnego Programu Operacyjnego Województwa Śląskiego, Raport końcowy z badania ewaluacyjnego, [https://www.ewaluacja.gov.pl/media/83730/Wsparcie\\_UbostwoEnergSlaskie.pdf](https://www.ewaluacja.gov.pl/media/83730/Wsparcie_UbostwoEnergSlaskie.pdf) (retrieved: August 2020).

<sup>34</sup> Instytut Badań Strukturalnych [Institute for Structural Research], Dom zimny, dom ciemny – czyli ubóstwo energetyczne w Polsce, [https://ibs.org.pl/app/uploads/2015/12/IBS\\_Working\\_Paper\\_16-2015.pdf](https://ibs.org.pl/app/uploads/2015/12/IBS_Working_Paper_16-2015.pdf) (retrieved: August 2020).

<sup>35</sup> Cf. FUNDEKO Korbel, Krok-Baściuk Sp.J., Wsparcie Działań Dotyczących Ochrony Powietrza i Ograniczania Ubóstwa Energetycznego w Ramach Regionalnego Programu Operacyjnego Województwa Śląskiego, Raport

#### d. Summary

The above data clearly demonstrate that housing conditions and the degree of energy poverty in Poland demand problem-solving actions. The programmes and instruments currently operating have not been successful in this regard, which prevents **a great many households from escaping energy poverty**. In particular, it is lower-income households that are systemically excluded from the support schemes. For example, the national support programme to deal with decommissioning high-emission (PM-wise) heat sources ('Clean Air') requires a 40% contribution from the occupier even in the case of higher-support groups. Responsibility for providing direct assistance to people in energy poverty has been cascaded down to local authorities, which frequently lack the financial, legal and technical capacities to be able to run comprehensive thermal upgrading campaigns for public and private housing stock. The actual threat though, which is associated with the division of responsibilities, is the **impossibility of developing extensive sets of solutions that could respond to the problems in various areas (energy poverty, housing, employment, climate), and could be implemented globally**.

Compared to Poland as a whole, Silesia seems to struggle less with energy poverty. Importantly, though, **the region is likely to have hidden energy poverty** (due to the degree to which households have household debt, including charges for heat). Furthermore, it is worth stressing that **there is a risk the problem will worsen in conjunction with employment cuts in mining and falling wages**. Another factor is that Silesia's local authorities are not taking the necessary action to help people escape energy poverty. Such action would show that the local authorities acknowledge the existence of hidden energy poverty and care about households living in these conditions.

### 3. How to ensure just transition – the need to address housing and energy poverty

The above review of the situation in Poland clearly demonstrates that a series of actions are required in this area. Yet the dominant features of the current policy in the field of just transition are:

- narrowing the focus down to protecting workers in coal production and in coal-based energy;
- a territorial restriction (which eliminates potential support for industries operating beyond the confines of mine-hosting municipalities even though they have industries directly linked to coal consumption such as metallurgy, the production of boilers for industry and households, chemical sector or agriculture);
- neglecting the problems of residents of other regions who are also dependent on coal as the cheapest heat source and for their residential comfort;
- disregard for the perspective of individual consumers of emission fuels;
- overlooking the heating sector both in the context of local district heating networks distributed all over the country, and in the context of individual heat sources.

All these points combined may lead to the topic of energy poverty being omitted from the National Framework Plan (*Krajowy Plan Ramowy*) dedicated partly to mining regions, as well as leading to further consumption of imported coal, even though the aim is to curb national coal production output in the areas supported.

#### a. Recommendations to the Just Transition Fund

The Just Transition Fund has not been designed to cut residential emissions (emissions by end-users) in the area of coal for heat. The Fund's backbone has been, instead, an economic transition which would focus on ensuring new jobs for workers who had previously served in coal production and coal-based energy industries.

This notwithstanding, as the above analysis suggests, support in the fields of energy poverty and housing is badly needed. **Without ensuring support schemes in these two domains, transition will not be just.** The shift away from coal will bring about higher costs of heating for households. Simultaneously, losing one's job within the traditionally well-paid mining sector will result in lower income, making energy poverty even more pervasive. Given all this, plus gradual deterioration of the housing stock, it is necessary that all these aspects are considered in the Just Transition Fund framework.

The following are the most crucial recommendations:

1. Broaden the scope of the Just Transition Fund **to encompass direct support within the Fund for housing and energy poverty.** Launch solutions making funds accessible for thermal upgrading investments and heat source replacement efforts, while taking into consideration the needs of the most vulnerable. Shifting away from coal in Silesia will affect the whole community. Similar to the smog problem, transition from coal has been associated with losing the historical access to coal as a local fuel on preferential terms (for mining families: free of charge ). Now this is an issue for all residents who inhabit housing estates supplied by local or municipal heating plants, where coal as fuel is still prevalent, as well as for dispersed households within single-family buildings dating back to the 1970s or earlier, where gas and heat from pipelines are not present.

The adopted mechanisms ought to include support for people who are unable to contribute part of the costs. It is also pivotal to ensure mandatory review and proper allocation of means (in line with actual demand) within the national and local common support programmes funded by the Just Transition Fund.

In the proposed fund as it stands, the scope of support within the Fund is insufficient (Art. 4 of the proposal for a regulation establishing the Just Transition Fund). It therefore needs to be expanded to provide thermal upgrading of single- and multi-family buildings, especially those inhabited by people in energy poverty.

2. Application of the already drafted scope of the Just Transition Fund aims to enforce comprehensive solutions, including ones specific to thermal upgrading.

As shown in studies by the Institute for Structural Research, while a plan for thermal upgrading of residential buildings is ambitious, every year would see available jobs

increase by 100,000, jobs that are especially suited to people with low qualifications.<sup>36</sup> Another study by the same Institute (concerning just transition from coal in Silesia) reveals that the building industry is regarded as the fourth most attractive labour market without links to coal mining.<sup>37</sup>

Thus, a sound step would be to utilise the potential of the Just Transition Fund: **use it to help ex-mining workers change their profession and get involved with the thermal upgrading works in residential buildings**, an endeavour to be launched on a mass scale. Yet, to be able to implement this pattern *en masse* requires **funds in place to allow for common thermal upgrading programmes**, if new jobs are really to grow in the sector.

3. To add to point 2, launch comprehensive solutions covering established paths for workers to change their profession and train in another industry. It is worthwhile investing in the development of specialisations within (i) insulation of buildings, which involves simple, accessible building works (this comes as a supplement or a limited alternative to point 2 above), (ii) the use of zero-emission local materials in thermal upgrading as a way to foster new jobs in production, and (iii) farming where bioproducts and biomass are currently seen as waste, not as a basic raw material (limiting the use of lumber as a fuel).
4. A just transition should also support consumers who are under social, environmental and economic pressure in shifting towards zero-emission fuels (also when it comes to CO<sub>2</sub>). Programmes at all levels (EU, national, local) should take note of the situation of coal end-users. For Polish households, coal is still the cheapest and most accessible energy source, and its replacement in buildings and the overall adaptation to zero-emission heating will be unfeasible without solidarity and social support.
5. Consider within the Just Transition Fund **the heating sector**, which is a major consumer of coal in Poland, and a massive polluter. The cost of energy transition, expressed in CO<sub>2</sub> emission fees, has already led to losses among heating operators, who will be forced to bear the financial burden of modernising heat sources and facing the challenge of limiting heat demand among residents.
6. The Just Transition Fund **should not be restricted territorially** to a few regions, or it should at least operate beyond these selected regions, in coal-dependent sectors. The shift away from coal in Poland will give rise to a number of major implications for the energy and heating markets. Those changes will be palpable for most citizens irrespective of whether they live in Silesia or elsewhere. Needless to say, in terms of energy poverty, the regions currently shortlisted for support are in no worse standing than the rest of the country.

---

<sup>36</sup> Instytut Badań Strukturalnych [Institute for Structural Research], Wpływ termomodernizacji budynków mieszkalnych na rynek pracy w Polsce, [https://ibs.org.pl/app/uploads/2018/04/IBS\\_Working\\_Paper\\_02\\_2018\\_pl.pdf](https://ibs.org.pl/app/uploads/2018/04/IBS_Working_Paper_02_2018_pl.pdf) (retrieved: August 2020).

<sup>37</sup> Instytut Badań Strukturalnych [Institute for Structural Research], Sprawiedliwa transformacja węglowa w regionie Śląskim – implikacje dla rynku pracy, [https://ibs.org.pl/app/uploads/2019/05/IBS\\_Research\\_Report\\_02\\_2019.pdf](https://ibs.org.pl/app/uploads/2019/05/IBS_Research_Report_02_2019.pdf) (retrieved: August 2020).

## b. Taking advantage of the remaining pillars of the Just Transition Mechanism

Bearing in mind that the Just Transition Fund is only one of the pillars of the Just Transition Mechanism, we suggest modifying the other pillars too. Similarly, they should aim to address the topics of housing and energy poverty within the available forms of support. We recommend:

1. abolishing the limits in EIB loan facilities for investments in energy efficiency in housing. In particular, (i) energy distributors should be made co-responsible for providing financial assistance to residents in the context of thermal upgrading and heat sources replacement, while (ii) credit should be given to borrowers in low-income groups for thermal upgrading purposes (in the case of comprehensive investments with a shift towards zero-emission heat sources);
2. ensuring a continuous stream of funds for modernisation to the most vulnerable, whose income, financial situation and creditworthiness prevent them from entering into long-term commitments, even if the running costs are lower in the end;
3. fostering construction programmes for social flats to be built in rural areas and in small towns, programmes that address the complexity of energy poverty. Upgrading an inhabited property to low-emission standards may often be impossible. The problem of insufficient means for modernisation concerns for example the growing group of lowest-income pensioners;
4. linking the Just Transition Mechanism with the 'Renovation Wave' programme which aims to enable, *inter alia*, the adaptation of the National Modernisation Plans. These plans take into account the issue of energy poverty and the dependency of EU citizens on coal as a basic fuel.

## 4. Just transition - conclusions

In closing, it is fair to say that in its current form, **the Just Transition Fund is divorced from the sphere of problems and challenges associated with the process of shifting away from coal**. First and foremost, the topics of energy poverty and housing have been disregarded, especially in the context of thermal upgrading.<sup>38</sup> Moreover, implications of the shift towards zero-emission sources for the heating sector have not been taken into consideration, an area where the impact on end-users is going to be significant, particularly in Poland. Funds need to be allocated if fossil fuels are to be abandoned in the heating industry by 2050, the process involving both producers (local heating plants) and consumers (residents), are **beyond the financial capacities, within the current schemes, of households', businesses', local authorities', as well as member states' own budgets**. EU-level intervention is therefore vital.

Transition may be just, but if it is to be so, it must cater to not only employment needs, but also to housing and heating needs. **A truly just transition should pave the way for all residents to step away from low-cost high-emission fossil fuels towards zero-emission**

---

<sup>38</sup> The topic of economic poverty in the EU has been insightfully addressed, *inter alia*, in: (i) H. Thomson and S. Bouzarovski, "Addressing Energy Poverty in the European Union: State of Play and Action" [https://www.energypoverty.eu/sites/default/files/downloads/publications/18-08/paneureport2018\\_final\\_v3.pdf](https://www.energypoverty.eu/sites/default/files/downloads/publications/18-08/paneureport2018_final_v3.pdf) (retrieved: August 2020) and (ii) "Vulnerable Consumer Working Group. Working Paper on Energy Poverty" <https://ec.europa.eu/energy/sites/ener/files/documents/Working%20Paper%20on%20Energy%20Poverty.pdf> (retrieved: August 2020).

**sources, without placing the financial burden of the shift upon those residents.** Thus, we must broaden the Just Transition Fund in scope (to acknowledge energy poverty and housing), and take extensive action that will enable the Fund to boost thermal upgrading initiatives in residential buildings.