



European Employment Observatory

EEO Review: Promoting green jobs throughout the crisis, 2013

Hungary

Zsombor Cseres-Gergely*

Budapest Institute for Policy Analysis and Institute of Economics,
HAS

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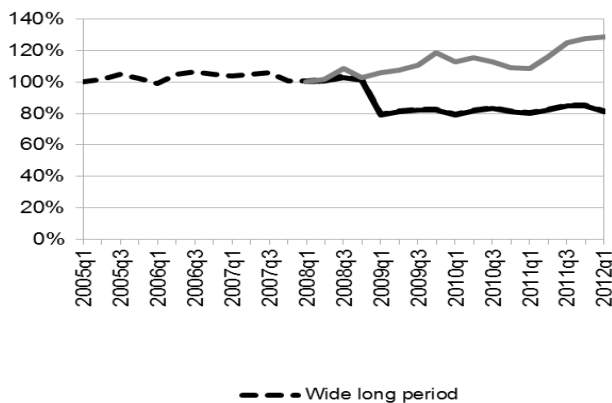
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1. Introduction: employment in the green economy

This article uses both a ‘broad’ and ‘narrow’ definition of the ‘green economy’, based on NACE (Statistical Classification of Economic Activities) rev 2 divisions, as suggested by Stoevska-Hunter (2012). The ‘narrow’ definition includes divisions 2, 36, 37, 38, 39, 81; whilst the ‘broad’ definition also includes 1, 35, 41, 42, 49, 50, and 51.¹ In examining the green economy in Hungary, differences emerge depending on the ‘definition’ used to analyse the overall picture.

Defining the green economy in the ‘broad’ sense (including agriculture, construction as well as the land and pipeline transportation sectors) a definitive drop in the number of persons employed in the green economy can be observed after the onset of the crisis in 2009. However, adopting a ‘narrow’ definition conversely reveals substantial (almost 30 %) growth during a period when growth in most of the Hungarian economy was very small. Indeed, most of the increase (or rather the lack of decrease) in employment is believed to have happened mostly due to the widely deployed public works programmes. Similarly, a difference between employment shares can also be observed. Using the ‘broad’ definition employment shares declined (from 20 % to 16.5 %); taking the ‘narrow’ definition employment shares grew (from 2.3 % to 3 %). Gross Domestic Product (GDP) data (available at sectoral level only) identifies that GDP growth in the waste management sector (‘E’), including divisions 36-39, was above average from the year 2000 onwards – except for in 2008 (HCSO, 2013).

Figure 1: Employment level in the green economy using a narrow and a wide definition (level in the first quarter of 2008 = 100, for the long time period, level in the first quarter of 2005 = 100)



Source: Own calculations based on microdata from the Labour Force Survey of the Hungarian Central Statistics Office

¹ The NACE revision 2 classification employs sections as the highest level, followed by divisions. The narrow definition used here includes the following divisions (in the order of the codes in the main text): forestry and logging, water collection, treatment and supply, sewerage, waste collection, treatment and disposal activities; materials recovery, remediation activities and other waste management services, services to buildings and landscape activities. The broad definition also includes crop and animal production, hunting and related service activities, electricity, gas, steam and air conditioning supply, construction of buildings, civil engineering, land transport and transport via pipelines, water transport, and air transport.

There is considerable uncertainty about the performance of the green economy. This is perhaps unsurprising since defining the ‘green economy’ in the first place is difficult, and there are different interpretations of what it means in practice. Various documents refer to green jobs as ones that are either offered in industries directly connected to the green economy (such as renewable energy creation, waste management, etc.) or in other sectors offering services that help actors in the economy to ‘turn greener’ (such as modernisation of heating systems to achieve greater energy efficiency). Taking the former definition requires using a very precise industry classification to examine the issue; available data restricts the examination of the issue, taking the latter definition at the present time as this is mainly available at the establishment level and aggregated further. The challenge is best illustrated by the fact that the ILO has only recently published a discussion paper on the matter (Stoevska-Hunter, 2012), some four years after the initial definition of green jobs (UNEP/ILO/IOE/ITUC, 2008). Current available data, therefore, requires any examination of the green economy in Hungary to adopt a sectoral approach.

2. Employment promotion strategies and programmes with low-carbon / environmental objectives or activities

Since the 2000, Hungary has had a scientifically well-funded strategy, the National Climate Change Strategy – NCCS (Nemzeti Éghajlatváltozási Stratégia - NÉS), in order to tackle the challenges of climate change (Cseres-Gergely, 2009). This strategy has provided the direction for policy formulation, but did not treat employment as a main aspect of greening policies. The operational version of the strategy is the National Climate Change Programme - NCCP (Nemzeti Éghajlatváltozási Program - NÉP), which followed the strategy after Hungary’s accession to the EU. There has not been much visible action at the strategic level in recent years, but the Government appears to dedicate special attention to the topic² and promises the delivery of a long-term National Decarbonisation Roadmap (Hazai Dekarbonizációs Útiter). It is positive that there has been continuity between successive governments in delivering the programme.

The NCCP relies on projects financed from EU structural funds and is almost completely mapped onto the development programme of Hungary – first the New Hungary Development Plan and its successor, the Szécheny Plan. While the former is already focussed on greening projects, the latter is formulated around ‘break-out points’, one of which is the development of the green economy. The plan anticipates that projects connected to this ‘break-out’ point will yield 150 000 to 200 000 new jobs, of which 70 000 are to be created in the renewable energy sector (at present there is no current data available to verify this).

The main groups of actions in the NCCP refer to: i) increasing energy efficiency; ii) developing intermodal transportation systems; iii) developing technology in agriculture and forestry; iv) modernising waste management and water provision; v) preserving natural sites; vi) promoting the health of the population; vii) developing water provision and management; viii) introducing training programmes to promote the preservation of nature; and, ix) initiating further research around climate change. These areas are covered by projects within priorities in the operational programmes of the development plans. Most of the projects are embedded

² The governmental website – see Internet (<http://klima.kormany.hu/>) provides a useful entry point to actual institutions’ websites responsible for the delivery of climate policy.

in the Environment and Energy Operational Programme (EEOP) and also some in the Economic Development Operational Programme (EDOP) - priorities 2 and 3, complex development of firms' capacities and that of the business environment. Both are financed mostly from the European Regional Development Fund with a 15 % co-payment from the Local Government; they have a total budget around EUR 2.9 billion (1 000 million) and EUR 4.9 billion for the 2007 to 2013 period. The employment aspect is not key to the EEOP projects, but some of those in the EDOP require increasing employment in some way. Regional development programmes also finance projects connected to the NCCP to some extent. Projects within the EEOP are managed by the National Centre for Environmental Protection and Energy, Non-profit llc. (Nemzeti Környezetvédelmi és Energia Központ Nonprofit kft., NKEK).

After the operation of the EU Emission Trading Scheme has commenced, the NCCP received an important additional source of funding. A mechanism called the Green Investment System – GIS (Zöld Beruházási Rendszer, ZBR) was created in 2009, to recycle funds raised via the trading scheme for projects that aim at improving energy efficiency. The system grants funding to projects that focus on the use of renewable energy, and improving the energy efficiency of lighting systems or that of buildings in general. Although employment targets are generally not set, projects of the latter type are often delivered by micro- and small enterprises, often working with relatively employment-intensive technologies. Interestingly, a grand plan based on what the authors call 'deep retro-fitting' projects was in development around 2010 with employment effects in mind (Ürge-Vorsatz, D. et al., 2010). The Government did not adopt it at that stage but GIS projects are currently suspended with the next phase of the system explicitly based on 'deep retro-fitting' principles. Some of the projects implemented during 2009 and 2011 are similar to the grand plan in their structure, but delivered on a much smaller scale. It is worth noting however, that the findings of the study are applicable on a smaller scale too; the direct employment effects of a greening project of this type are not long-term and depend heavily on the technology employed. GIS projects are managed by the Non-profit llc. for Quality Control and Innovation in Building (Építészeti Minőségellenőrző Innovációs Nonprofit kft., ÉMI).

The third type of policy that is relevant to the topic in the period after 2009 is public works. Put in place at the beginning of 2000, public works became one of the most prominent active labour market policies during the end years of the socialist Government (Fazekas-Scharle, 2012). In 2010, the new Government retained the essence of the programme: making long-term unemployed people work on a non-market basis for the benefit of the public. However, some elements of the programme have changed over time, resulting in its centralisation and partial specialisation. While public works were almost exclusively organised by municipalities before 2010, many of them were reorganised thereafter: organised or at least supervised by a central authority in the Ministry of Interior. As part of the centralisation effort, countrywide sectoral sub-projects were launched, some of which focused on forestry or drainage, as part of developing the green economy. Pilot projects were also introduced. One of these projects - the 'boiler programme' - aimed at replacing out-of-date boilers installed at public institutions to increase energy efficiency. The design of these programmes is the reverse of those within the NCCP; employment is the primary goal and greening is a welcome side effect.

3. Detailed description of practices

There are a number of projects running in most of the above strands; in this section one illustrative example from each will be discussed in terms of the potential employment effect.

EEOP – Recultivation of landfills of individual settlements on a regional basis (measure 2.3.0)

The EEOP is the main delivery channel of projects associated with the ‘Green Economy’ in the new Szécheny Development Plan. It includes a number of measures aiming at improving energy efficiency, but a number of these are either not available anymore, or are very similar to projects run under different schemes (such as the GIS). Measure 2.3.0 is different in that it contributes to greening through developing the environment directly. Specifically, this project aims at the re-cultivation of landfills that are closed, but not properly sealed, from their environment endangering water reserves and the surrounding soil. Given that environmental sealing was not a top priority in the socialist era and the number of potentially affected landfills in the country, this project contributes to greening directly.

The grant is available to municipalities or associations of municipalities (who already participated in a preparation phase of the project in the EEOP 7.2.3.0 measure). One beneficiary can receive between HUF 650 million (EUR 2.2 million) to HUF 10 billion (EUR 34.3 million) from the total of HUF 55.01 billion (EUR 188.8 million) available. The grant is non-refundable and covers 100 % of costs associated with the project. Projects have to be completed within four years of starting. To date 58 applications have been received representing a total value of almost HUF 200 billion (EUR 686.7 million), of which 33 were granted support with a total value of HUF 103 billion (EUR 353.6 million).

There is no direct employment target set in this project nor is an employment effect required. Running the project however covers a variety of work procedures required to re-shape and seal affected landfills. These require the work of engineers, machine operators, manual workers and management staff, among others. Its contribution to employment is therefore realised by providing demand for these services and a wide range of skills.

EDOP – Supporting complex technological development and employment (measure 2.1.3)

The EDOP measures aim at supporting developments that ultimately contribute to the main goal of the new Szécheny Plan - that is fostering economic growth through the development of enterprises active in specific sectors and areas. This measure aims at providing support for investments in physical infrastructure, technologies or the creation of new jobs for enterprises operating in sectors connected to the green economy. The availability of the measure has been announced multiple times, each with slightly different content.

The EDOP measures aim to help beneficiaries make investments in times of tight credit conditions, for the purpose of either speeding up or enlarging existing projects (or start projects) that they would not be able to start in the absence of the grant. Whether the complete structure of the actual one does serve this purpose is difficult to tell and should be subject to evaluation. Such an evaluation is ongoing, but the results are not yet known. Having said that, the Government is known to be investigating new forms of financial support, shifting away from non-refundable to refundable types.

Grants from the measure are available to firms from convergence regions only, outside the central region of Hungary. They are also required to have at least 25 employees at the start of the project or alternatively create enough jobs to reach this level by the end of receiving the grant. The duration of a project is not limited, but mandatory job retention acts as a natural, but firm-specific limit on projects.

The budget available for the measure is HUF 62.3 billion (EUR 214 million) during the years 2011 to 2013. Individual grants are expected to be relatively large, between HUF 50 million to 200 million (EUR 170 000 to 690 000). These can finance at most 25 % of all costs of the development the company undertakes. The actual value of the grant results from a scoring process, in which preserving jobs has the largest weight (35 %), closely followed by job creation (30 %). The size of the firm plays a smaller role (15 %), while operating in a 'break-out point' sector and membership in an accredited innovation cluster has a weight of 10 %.

The employment effect of the grant comes from two sources. The first one is the potential complementarity between the capital put in place and the workers required to operate it. Because of the very little data available, and the heterogeneity of the investments, this is very difficult to determine. The secondary effect, which is easier to account for, comes from the requirements of the grant. Firstly, beneficiaries must not let the number of workers in the two years following the project completion fall below the number in the year before application. Secondly, there are two other obligations to choose from: applicants can either oblige themselves to increase spending on human resources by 5 % during the project period (looked at the same relative way as previously); or to create new jobs.

Beneficiaries are required to provide detailed data on a regular basis on the number of employees (including specific groups such as women, men, Roma and handicapped), on jobs created and on human resource spending. These data are however not available to the general public and it is not clear if the managing authority undertakes regular statistical analysis besides the regular checks on actual projects. Because of this, even a rough estimate of the general impact is difficult to estimate. The information system of the National Development Agency provides data about the number and value of outcomes supported. In 2010 and 2011 there were 27 and 120 beneficiaries out of 42 and 140 applicants, respectively, receiving a total of HUF 18.8 billion (EUR 64.5 million) and HUF 47.8 billion (EUR 164 million).

GIS – The 'Climate-friendly Panel' sub-programme

The Green Investment System (Zöld Beruházási Rendszer, ZBR) has a number of projects, all aimed at increasing the energy efficiency of buildings in one way or another. These include the insulation of buildings built with industrial technology ('Panel' buildings), increasing the energy efficiency of privately owned houses -changing light bulbs and household appliances for more energy efficient ones as well as more recently putting solar thermal panels in place to assist heating and the generation of hot water.

Considering all of the GIS sub-programmes, the most popular was the 'Panel'. Although data are not yet complete and also slightly out-of-date, Table 1 of the annual report for the GIS shows this clearly. The 'Panel' sub-programme absorbed HUF 30.7 billion (EUR 105 million) during its first two phases, and helped to reduce CO₂ emission by around 78 000 tons per year, which is the largest among all programmes. It is no wonder the 'Panel' sub-programme was quite successful: there are around half a million flats in Hungary that were built using

industrialised technology, housing a total of 1.3 million people. Thermal insulation and up to date heating systems were not a priority when building these flats and, partly because of the poor quality of construction, the re-sale value of these flats remained low. Following initial success, the programme was extended beyond its original reach and accepted additional applications in 2012. Altogether, the two phases of the sub-programme have affected 77 536 flats.

The ‘Panel’ sub-programme supports activities that contribute to CO2 emission reduction in a well-argued, measurable way. These include: the change of doors and windows to increase thermal insulation (both in private and communal areas, including the installation of shades); the thermal insulation of roofs and the faces of buildings; the modernisation or installation of ventilation systems (potentially with heat-exchange mechanisms); the modernisation of local heating systems (including the installation of individual heat-regulator valves, meters of individual heat use, and the optional modernisation of boilers if present); glazing of loggias in order to capture solar heat and increasing the use of renewable energy (by installing solar panels, geothermic heat exchanges and biomass boilers).

The projects can be financed by the GIS only or co-financed by the local municipality. Support from the GIS is available on two bases. The first is granted on a per flat basis up to a maximum amount of HUF 0.5 million (EUR 1 716) per flat, but maximised at one third of the total costs. The second is granted on the basis of the achieved overall energy-efficiency of the building, set at fixed amounts. Taken together, these parts of the grant cover around two-thirds of all costs for a typical project. The remaining part must be paid by the grantee.

Similar to EEOP projects, the ‘Panel’ sub-programme has no set employment target. Employment effect is also not directly calculable and is also uncertain, depending on the actual activities and contractors. Installation of up-to-date machinery is relatively capital intensive, while insulation – a large part of the actual work done – is quite labour intensive. Larger companies are also likely to be preferred in larger scale projects, while also likely to employ capital-intensive technologies.

Public employment sample project - The ‘boiler programme’

Public employment projects are started with the primary aim of providing employment to long-term unemployed people and thus potentially help them to re-enter the open labour market. The stated goal of policy makers is to make this happen through adjusting the level of unemployment and social benefits, as well as the minimum wage, in a way to create a clear preference towards work. Based on this, work on the open labour market pays the most, followed by public works and social benefits trailing them all. While the logic is simple and compelling, there is evidence that public employment chances are available only for part of the target population and there is no clear sign of substantial efforts (such as personalised training or counselling) being made to facilitate transition to the open labour market. Direct effects of the programme certainly appear to be visible through the increasing number of vacancies and level of employment. However, still, because of the associated controversies, public employment remains a heavily debated policy measure, whose long-term efficiency is questionable at best.

The boiler programme is an extension of the overall public employment programme sharing many of its advantages, and disadvantages. It goes back to the original setup of public

employment in which the support of municipal institutions appeared to be the primary aim, rather than increasing employability. The programme aims to support the development of alternative heating systems that reduce the dependence on gas as a singular energy source. Potential beneficiaries of the boiler programme are municipalities in disadvantaged micro regions.

The programme is initiated by the Minister of Interior, based on its capability to do so by government decree 375/2010 (XII. 31. §7/B). The first phase ran in 2011, supporting 109 institutions and 82 settlements with a total value of HUF 0.4 billion (EUR 1.3 million). Given the demand for renewal (695 out of 2 430 municipalities indicated an interest in participation), the programme was offered again in 2012 and has attracted a total of 778 applicant municipalities in three waves, employing a total of 1 373 public workers. It has HUF 5 billion (EUR 17 million) available for public employment from the central budget (National Employment Fund, public employment) and an additional HUF 5 billion (EUR 17 million) from an EEOP measure.

The programme has two main components, support for investments on the one hand and support for public employment on the other. In the first component, support is available to purchase a boiler working on biomass or other bio-fuel, as well as to purchase a machine capable of producing wood-bits used for heating. In the second component, support is available to employ public workers for the operation of the boiler. Applicants must have experience of operating heating systems for at least 10 years and employ public employees exclusively to produce heating elements and also to operate the boiler – but this is mandatory only in the start-up phase of the project. Municipalities must request a public employment quota, which is available for 2 full-time employees for 12 months a year within the project. Employees can work on tasks directly related to the operation of the boiler, including maintenance. Support is also available for clothing and tools as well as travel required for attending the job. There is no training component in the programme.

Employment effects of the programme can be two-fold. It is important to first note that this is not a typical retro-fitting project, in which the main employment effect is temporary – in fact, public employment is not used at all to put the boilers in place. The effect comes from an elongated operation period, and given the circumstances of the project, it is quite safely calculable. The municipality receives funds to employ two full-time workers and it is required to operate the boiler itself for at least five years. The number of supported public workers was 1 373 in 2012 (a figure provided by the Ministry of Interior, a little less than 1 556, the outcome if every municipality requested two workers for one institution). Similar figures are not available for 2011, so they have to be estimated. If counting the maximum allowed employment figures per award, the employment effect for 2011 applicants can be a total of 218 workers. Given that grantees have to sustain the operation of the newly installed boilers, the effect will be present for five years.

After the first-order employment effects, one might also expect second-order ones that is increasing employability of participants – this is indeed the manifest aim of the public works programme itself. Because the programme itself has a long duration but has not been running for a long time, it is too early to say anything about this. Based on previous experience however, one can have doubts about such effects and their efficiency. Having no training component whatsoever suggests that the tasks performed are extremely simple or the

employees already have the skills required for the job. In the former case, it is not clear (although possible) that the work experience is relevant on the open labour market. In the latter case, it is possible that the programme is just a peculiar way of financing the operation of municipalities and the employment created would have existed anyway. Until a proper evaluation is available and the required time for this has elapsed, we shall not know the answers to these questions. Despite this, the boiler programme is probably the only one that almost surely has an effect on both greening and employment, with the employment effect likely to extend beyond the short-term.

4. Conclusion

Coordination between greening and employment policies in Hungary is limited, yet there are a number of projects, which have originated from one field, but can have an effect on the other too. They are different in nature, but most of them are based on the solid scientific foundation of the National Climate Change Strategy and Action Plan, and the National Climate Change Programme. Implementation of the strategy is a long-term venture and as such, it is too early to assess the full impact. We can observe however that planning, delivery and funding of the strategy shows consistency over time and across governments, with substantially different positions on many key questions. This certainly has to do with scientific foundations, but perhaps also with the fact that there was limited consultation or collaboration between policy makers and relevant stakeholders. Measures have been established that incentivise cooperation, in particular between municipalities lacking free funds and companies in the construction sector facing decline since the onset of the economic crisis in 2009.

Although development policy is very much sector-based in Hungary, the same is not true in relation to the development of the green economy. The NCCP addresses specific problems by way of specific projects. Most of these mobilise sectors and occupations connected to the green economy, but this connection is not exclusive by nature and is not enforced in any way. The same applies almost always to the connection to employment policy. Many of the projects have the potential to mobilise a larger number of workers, but in almost all cases this is not guaranteed in any way and depends largely on the technology employed. Whether or not this is a good thing remains to be judged. While such a loose connection provides a similarly loose transmission of the idea of greening parallel to increasing employment, it also does not introduce distortions to technology that would harm efficiency and thus waste taxpayers' money.

The Hungarian Government has been successful in using non-domestic funds to finance the development of the green economy. The National Climate Change Programme draws largely on EU Structural Funds and is formulated as projects within the Environment and Energy Operational Programme as well as in the Economic Development Operational Programme. The absorption ability of Hungary is above average within the EU, but that of the EEOP is the least effective among all operational programmes (KPMG, 2011). Although this can be partly due to the lengthy administrative procedure that precedes infrastructure-related developments in Hungary, it is more likely that the reason is the lack of sufficient information about potential beneficiaries. There are measures however helping absorption directly. One of these is that advance payment was made possible for the EEOP, which sped up the affected projects.

It is not something that would be specific to Hungary, but when assessing greening, one cannot sidestep the difficulties associated with measuring it. As we have already seen, measurement of the green economy is a problem that has not been solved even at the theoretical level. Data in existing surveys have to be extracted in a specific way in order to be able to reflect the potential and development of the green economy and its relation to employment. Satisfactory accounting has to combine information on sectors and jobs, of which the ‘green ones’ from the latter are not yet specified. This might even require introducing new measurement on tasks performed within a job. As in many other countries, improvements are needed in the way statistics are collected to support national analyses. Currently, there are no planned initiatives to achieve this within the Hungarian statistical system.

Perhaps the most visible deficit in planning is that, despite their relatively large size in terms of funding and entities affected, the measures introduced are of relatively small importance and they blend in with the multitude of other measures with different starting points. This however is likely to change in the near future. On the one hand, we can expect the Green Investment System to be redesigned soon with a focus on deep retro-fitting of privately owned housing and perhaps on a grander scale than before. On the other hand, the Government has announced the reform of the complete system for the distribution of EU Structural Funds. The former central development authority is expected to lose its dominant position and ministries are expected to take on much of the responsibility in all but the contracting phase. It is difficult to foresee the effect of such a change, but it would be surprising if it increased the cooperation between different policy strands. Given the presently practically missing coordination between greening and employment policy, the more likely outcome is that there will be no major changes to come.

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