

## Time for Geography to Catch-Up with the World

‘What’s a middle income country?’ asked one year 10 pupil. ‘There aren’t any’, replied another. This was in response to the following question posed by the student teacher leading the lesson:

Where does the majority of the world population live? A) Low-income countries, B) Middle-income countries, C) High-income countries.

The question, drawn from the Gapminder Test (2018), was used to introduce the class to a lesson on different approaches to development. What struck me about the dialogue was that in a GCSE class, several years into their geography education, 15 and 16 year-old pupils would be ignorant about what a middle-income country was. This is especially troubling given that the correct answer is B – over 5 billion people live in middle-income countries.

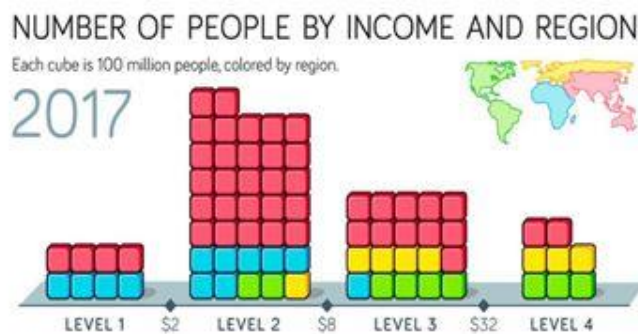
Rather than pointing the finger at the teachers in the school, I think that part of the problem lies with an outdated framework that some schools are using to teach development. ‘The old labels are wrong’ suggest Hans Rosling, Ola Rosling and Anna Rosling Rönnlund in *Factfulness* (2018), in reference to the terms ‘developed’ and ‘developing’. Indeed, before he passed in 2017 Hans Rosling dedicated a significant portion of his life towards breaking down misconceptions about the developing world and the notion of an insurmountable Gap between them and the developed world. How should the geography education community respond in order to catch up with the world?

Where this is not already being done, the first step is to replace the binary notion of higher-income (HIC) vs lower-income country (LIC) with a more nuanced model that captures the differences between developing countries – the majority of whom are in the middle. Second, our models of development need to be set within context of the historical record of progress, so that pupils learn ‘that it is possible to move through the levels, both for individuals and for countries’ bringing about a transformation in living condition and life opportunities (Rosling *et al.* 2018; 38). Until now, geography as a subject has been slow to capture and teach students about how much the world has changed over the past few decades (Standish 2017a). The website Gapminder and *Factfulness* are important resources for initiating change, but teachers will need more than up-to-date facts to teach development accurately.

### Beyond the Binary Worldview

We only need one graphic from Gapminder to illustrate the problem geography teachers have with the current conceptual toolbox the subject provides. How useful would a pupil find the terms HICs and LICs for interpreting the global spread of people by income (Figure 1)? HICs and LICs could be accurately applied to countries at Level 4 and Level 1 respectively (and possibly some countries at Level 2), but what about the 5 billion people in the middle?

**Figure 1: Number of People by Income and Region** (Gapminder 2019)



There are already clear indications of change and attempts by publishers and examination boards to find the right language with which to present countries in the middle. Although the binary terms HIC and LIC persist, many teachers already teach about a continuum of countries at different stages of development. Some of the terminology used includes Newly Industrialised Country (NIC), Newly Emerging Economies (NEE), BRICs (Brazil, Russia, India and China) and MINT (Malaysia, Indonesia and Turkey). NIC **usually** refers to countries that underwent rapid and successful industrialisation in the 1980s, such as Taiwan, South Korea and Malaysia. However, the examination board Eduqas takes a broader view suggesting that NICs:

[A]re middle income countries where the pace of economic growth outstrips that of other developing countries. NICs are characterised by: the relatively rapid growth of the manufacturing sector of the economy; rapid urban growth; strong trading relationships with other countries; and the operation of foreign owned multinational companies (MNCs) within the country. (Eduqas 2019)

Oxford, Cambridge and RSA (OCR) employ the term ‘emerging and developing countries’ as their middle category. While for the Assessment and Qualification Association (AQA), Newly Emerging Economies refers to:

Countries that have begun to experience higher rates of economic development, usually with higher levels of industrialisation. They differ from LICs in that they no longer rely primarily on agriculture, have made gains in infrastructure and industrial growth, and are experiencing increasing incomes and high levels of investment, e.g. Brazil, Russia, China and South Africa (the so-called BRICS countries). (AQA 2018)

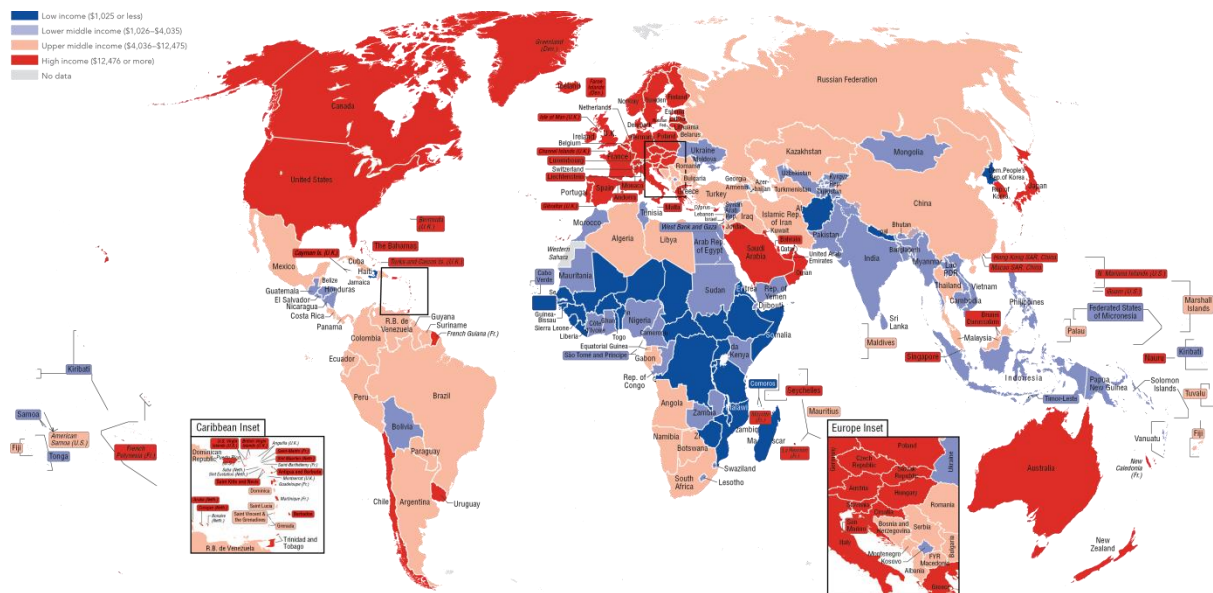
So, part of the problem is that different language is being used by different publishers and exam boards and this determines the language schools **tend** to use with pupils. However, the bigger question is whether the terminology currently employed is sufficiently accurate and hence adequate to help pupils make sense of the continuum of developing countries.

Both the rise of NICs since the 1980s and NEEs in the twenty-first century are very significant developments that have broken the strangle-hold that the G8 previously held on the global economy (Simpson 2008). As such, they are important for geography students to understand and they do tell us something about what is going on in middle-income countries. Yet, what they don’t do is provide pupils with a *graduated conceptual framework* through which they can *classify* levels of development – for both people and countries. Making sense of the continuum of **development-quality of life** is the power of Rosling’s Income Levels model<sup>1</sup>. And, the term NEE is probably confusing for pupils when

applied to the likes of Russia, China and Brazil, whose economies have been developing over the past two centuries.

In *Factfulness*, Rosling tells us that it took him 17 years and numerous lectures to encourage the World Bank to replace their binary approach with a graduated income scale. This they did in 2016, the outcome of which is a much more accurate map of the world (Figure 2). Again, this leads to a more nuanced and accurate picture of the global distribution of income levels as well as the shrinking number of low-income countries. It is refreshing to see this map used in a new textbook *Progress in Geography: Key Stage 3* (Gardner *et al.* 2018). **Now we need other publishers, exam boards, subject associations and other resource providers to move in a similar direction. There is also a question of whether or not we should continue to use the terms developing and developed with pupils. Their wider use in society is one argument for at least making reference to them. However, if we are going to retain the term ‘developing country’, as I have done here, we need to make it clear that this is being used to refer to countries as different as Haiti and China. Teachers are perfectly capable to breaking down ‘developing’ to explore the range of levels found in lower and middle income countries, such that pupils don’t walk away with a binary worldview.**

Figure 2: Countries by Mean Annual Income per capita<sup>2</sup> 2017 (World Bank Group)



1. Income levels devised by Gapminder - data from PovcalNet and the International Monetary Fund, adjusted for Purchasing Power Parity at \$2011.
2. World Bank use annualised Gross National Income per capita converted from local currency using Atlas method.

There is certainly room to debate the boundaries between different categories of income (the World Bank and Gapminder each have their own classification and they have different audiences in mind). And, we should always consider income next to other measures of development (which I will come on to). **While the relationships between income, development and quality of life are complex, ‘Economic growth provides the resources necessary for development to occur’ (Ben-Ami, 2010: 96), although of course there are exceptions like Saudi Arabia.** Hans Rosling **himself himself** was acutely sensitive to the difference even minor changes in income levels made to people’s lives. As somebody who spent many years helping people in low and middle income countries, such as Mozambique, Tanzania, the

Congo, Mexico, and Cuba, often making choices about how to apportion limited resources to save lives, Hans Rosling witnessed the difference income can make to people's quality and longevity of life:

People living in extreme poverty on Level 1 know very well how much better their life would be if they could move from \$1 a day to \$4 a day....People who have to walk everywhere on bare feet know how a bicycle would save them tons of time and effort and speed them to the market in town, and to better health and wealth. (Rosling *et al.* 2018, 45)

Moving over the international poverty line, currently \$1.90 per day<sup>3</sup> (World Bank 2015), can mean that some basic necessities such as access to food, water and sanitation are met making a massive difference to quality of life. In *Factfulness* the authors provide their description of what life is like on different income levels. Geography teachers need to find ways of bringing the differences to life and meaning for pupils. One fantastic resource that many teachers are already using to help pupils to visualise living conditions on different levels of income in different parts of the world is Anna Rosling Rönnlund's website Dollar Street. Below is an example of houses in different countries at variable income levels (Figure 3).

3. Cost of living at Purchasing Power Parity exchange rates.

Figure 3: Homes based on annual family income (Dollar Street 2018).



Dollar Street also enables us to show differences at the level of families and individuals rather than by country, looking beyond the averages of data by country.

While income is very significant for, and hence correlated with, quality of life (especially at lower and middle income levels), there is no sense in which we should turn back the clock to the 1960s when it was the only measure of development. Today, geography rightly draws upon multiple measures of development including gender equality, environmental quality, indices of corruption, inequality and citizens' rights. Combining education, health and income, the Human Development Index (HDI) is a sophisticated and more holistic measure of development. Teachers need to make choices about which measures of development they introduce and when, such that they can progress pupils' understanding about development. The beauty of Rosling's Income Levels model is its simplicity and that money is a commodity that most children can easily relate to. But, of course, money is a means not an end. Rosling agrees and he recognises the limitations of data: 'The numbers will never tell the full story of what life on Earth is all about' (2018, 192). Again, there is a time and place for teachers to use data to illustrate change and a time to discuss its limitations, especially when applied to qualitative life experiences.

What models do for pupils is to provide a framework to make sense of the array of countries and living conditions across the world (Enser 2019). Once they understand the difference in quality of life for people living on different income levels, teachers will be able to relate this theoretical knowledge to new contextual examples (countries or places) and pupils will immediately have a base level understanding of expected living conditions for people living in this place or country (Standish 2017b).

### **Revisiting Development Theory: Bringing Progress Back In**

‘The world has completely changed. Today, families are small and child deaths are rare in the vast majority of countries, including the largest: China and India,’ suggest Rosling *et al.* (2018, 27). Yet, he adds that ‘Most of us are stuck with a completely outdated idea about the rest of the world’ (*Ibid.*). This is why participants from countries all over the world, and especially in the West, score so poorly on the Gapminder Test – for instance not knowing that the global rate of extreme poverty has halved over the last 25 years (*Economist* 2017).

Implicit in the narrative about development is change for the better or *progress*. This is not an easy discussion to have in contemporary, post-modern western society **where attitudes towards large-scale resource use and development are cautious, if not reluctant**. Steven Pinker (2018) calls this ‘**progressophobia**’; Daniel Ben Ami (2010) ‘**growth-scepticism**’. To illustrate the point, in his introduction to his text *Development Theory* Jan Nederveen Pieterse suggests, ‘The classic aim of development, modernization or catching up with advanced countries, is in question because modernization is no longer an obvious ambition’ (2010, 1). While ambivalence towards modernisation may be a trend in western societies I very much doubt that people living in poverty take the same view. What is refreshing about *Factfulness* and Gapminder is that they illustrate the difference modern medicine, clean water, fuel, food, transportation and well-paying jobs can make to the lives of people who don’t have them.

*Factfulness* documents many of the **changes in evidence as moved countries have moved** from low to middle-income. They graphically show ‘Bad Things Decreasing’ like oil spills, HIV infections, infant mortality, ozone depletion and smoke particles, as well as ‘Good Things Increasing’ such as women’s right to vote, immunization, literacy, the proportion of girls in school and the area of land under conservation. Many of these trends are gradual, but ‘slow change is still change’ note Rosling *et al.* They also take care not to minimise the significant problems the world still faces like global warming, terrorism and further reduction in poverty. However, there are other significant changes that *Factfulness* doesn’t describe that are worth noting. Both India and Indonesia are introducing national health care systems that will reach significantly more of their populations. Banking via mobile phone has given millions of people access to funds that would otherwise have been difficult to reach. The Internet has led to many start-up companies in middle income countries, not just in the West. For instance, in Angola there are restaurants providing delivery service to homes via Apps. And, in Ghana and Rwanda medical supplies are being delivered to remote areas by drones (by a company based in San Francisco) (Bright 2019).

Reading *Factfulness* and other resources will help teachers to begin to understand how much the world has changed and that we still need to engage with a modernising narrative for pupils to make sense of transformation in low and middle-income countries. **This doesn’t mean we need to embrace**



Rostow's Modernisation Theory, although it is worth introducing and critiquing alongside other models. Today, social scientists take a broader and more holistic view of development as multi-dimensional, encompassing progress in physical capital (public and private infrastructure), social capital (rules, norms, trust, obligations and reciprocity embedded in society's social relations, social structures and institutions, including the political system and civil society), financial capital (savings and lines of credit), human capital (investment in education, health care and nutrition of individuals) and natural capital (stocks of environmentally provided assets such as soil, atmosphere, forests, minerals, water and wetlands) (Moser and Norton 2001).

Globalisation, as a theory of recent change, helps us to comprehend the increased internationalisation of capital and business, but again is not without its critics (Rosenberg 2000). Perhaps one of the most significant triggers for change in some low and middle-income countries has been China. Its investments and resource-extraction in many African countries has been well documented – leading to the construction of schools, hospitals, roads, railways, ports and other infrastructural projects including farming (AidData 2018; Lee *et al.* 2007). This is not to suggest that this investment and resource-acquisition is benign and should necessarily be equated with progress; and, it certainly has its critics (van Mead 2018). But, China's involvement in Africa and other regions is leading to the transformation of lives and opportunities, as well as ownership of resources. In Asia, the Chinese Belt and Road Initiative has been described as the largest infrastructure project the world has ever seen (Kuo and Kommenda 2018). For better or worse, China is a huge part of the story of change in low and middle-income countries and hence its worldwide influence needs to be taught as part of the twenty-first century geography curriculum.

So, we need to acknowledge and teach about how much change there has already been in low and middle-income countries and we are going to need to revise our notion of development to include a more ambitious view of progress. This means recognising that geography is partly responsible for the degree of misconceptions people (adults and children) have about the world, and the media has also played its part. In a research paper on geography education in UK schools, it was noted that, 'there is a tendency to promote particular values in school geography which favour 'local' development projects, focus on 'sustainable tourism' or persuade pupils that Fair Trade is the solution to issues of poverty' (Lambert & Morgan 2011,13).

We might begin by returning to the origins of development studies. 'It was during the second World War that the discussion of the development of poorer countries, as opposed to the question of economic growth in general, began to be discussed' recalls Ben Ami (2010, 199), leading to the academic discipline of development. In some instances there is a residual hangover of a post-colonial mind-set: development is something we do to help out poor countries. However, most of the recent steep decline in global poverty has been achieved because countries have been able to grow their **own** economies rather than due to western aid, notes Barder (2011). Barder suggests that, in part due to economic growth, relationships of dependence are being replaced by relationships of interdependence.

~~Teachers also need to be careful with the use of emotion and representation of low and middle income countries, especially when using educational resources provided by non-governmental organisation (Tallon 2012). Today, exam board specifications continue to place significant emphasis on aid and fair trade, which may well help out individuals, but contribute little to the wider structural and political changes that could lead to long term differences in health, wealth and opportunities (Chang 2010).~~

The narrowing of horizons and expectations about development as transformation is by no means a problem specific to geography. It can be found in development theory and in policy discussions. In an insightful chapter analysing the Millennium Development Goals (MDGs) and World Trade policy economist Ha-Joon Chang found that the ‘dominant discourse on ‘development’ really lacks any real notion of development in the sense of the transformation of the productive capabilities and structure (and the accompanying social changes)’ (Chang 2010, 9). Rather than the expectation that ‘developing countries need to get out of what they are doing now (specialization in which is after all what keeps them poor) and move into higher-productive activities,’ Chang suggests that MDGs reduce the multifaceted and complex processes of development to a series of targets to be met (Chang 2010, 4).

Development as a transformative experience for countries means moving beyond superficial target-setting and short-termist approaches, **such as with the Millennium Development Goals**. It means recognising that development is something that nations do for themselves, sometimes with the help of foreign investment, but not through crippling levels of debt and interest payments. Students of geography need to understand that most countries are in transition (an escalator is a good analogy), that takes them from low to higher levels of income and quality of life, **although often not in a linear direction**. It will help them to understand this transformation if they learn about how their own country has moved through the different stages of development. As Rosling reports, when he was born in 1948 Sweden was on Level 2 or the same place as Egypt is today on his health-wealth bubble chart.

When teaching about countries moving from low to higher-levels pupils need to understand that this is neither an easy nor a straight-forward process, **and that sometimes countries can move backwards as well as forwards (for example Venezuela)**. In *The Bottom Billion*, Paul Collier identified four ‘traps’ that make it difficult for countries to move out of level 1. These included conflict traps (civil wars or other violence), natural resource traps (either lack of resources or abundance of a primary resource), landlocked countries with bad neighbours, and poor governance (Collier 2008). Collier does not see such ‘traps’ as insurmountable and indeed there are countries moving from Level 1 to Level 2. Doing so requires a combination of economic, political and social changes, but key to transformation is stimulating economic opportunities for companies and citizens (Collier 2008).

~~A multi-pronged approach to development is also central in the theoretical approach taken for the Sustainable Livelihoods Model. Authors Moser and Norton (2001) emphasised the importance of simultaneous progress in physical capital (public and private infrastructure), social capital (rules, norms, trust, obligations and reciprocity embedded in society’s social relations, social structures and institutions, including the political system and civil society), financial capital (savings and lines of credit), human capital (investment in education, health care and nutrition of individuals) and natural capital (stocks of environmentally provided assets such as soil, atmosphere, forests, minerals, water and wetlands). In addressing the question, what does it mean for a country or people to make progress? pupils need to understand development as a multi-faceted process and the implications of not making changes in areas such as civil society.~~

So, geography teachers should introduce progress both empirically, through examples of transformation that has taken place, and theoretically using a variety of models. This is not to suggest for one minute that transformation and progress are **one and the same**. I have already alluded to changes above that will have negative consequences for local people. And, we must also recognise that progress is a contested idea. One way to address this is to look at how ideas about progress and development have changed over time. Making links with history, we can trace the notion of progress

back to the Enlightenment and the quest for knowledge, reason and humanism (Pinker 2018). Following the American and French revolutions wider social transformation became important to theories of progress (Ben Ami 2010). And, in the post-Second World War period progress was aligned to ideologies of capitalism, socialism and communism. However, as teachers we have a responsibility to engage children in this discussion and to explore different viewpoints about progress and development, such that they are equipped to contribute to the world when they become adult citizens.

## Conclusion

In conclusion, I would like to return to the limitations of data. While data can give us information about changes to the very important material living conditions – we should never belittle the importance of access to clean water, food, sanitation, education and transport – there is more to development than facts. I concur with Rosling that ‘the end goal of economic growth is individual freedom and culture’ (2018, 192). As Rosling recalls the day his family bought their first washing machine and his mother told him, ‘Now Hans...The machine will do the work. So now we can go to the library’. In addition to the empirical evidence of transformation by societies and individuals, the story of development and change in the world has significant moral dimensions. This involves making judgements about positive and negative changes, such as industrialisation versus environmental conservation and resource use.

While *Factfulness* and Gapminder are great starting points, teachers will need access to better development resources, more current information, more robust ways of modelling development and ways of engaging pupils in discussion about progress. Rather than letting the ‘exam-board tail’ wag the dog isn’t it time we, the geography subject-community, took the lead and embraced the models and resources that more accurately characterise development. This doesn’t have to mean standardisation, but a revolution in thinking about development is called for. This would go a long way to ensuring that the current generations do not leave school with an outdated view of the rest of the world.

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