

# The Wealth of Nations – Asset Management for Sustainable Growth in Sida’s Partner Countries<sup>1</sup>

Earning income that covers our basic needs and increases welfare requires assets such as skills and labour, physical capital, and/or natural resources. We can temporarily increase our income by selling or overusing our asset base, but this will have long-term consequences on our ability to earn income in the future. Currently, the global consumption is higher than what our global assets can sustainably maintain (given current knowledge) and thus we need to think carefully about building a sustainable base for long-term sustainable economic development.

Data from World Bank’s “Changing Wealth of Nations” (2018) now allows us to make assessments of the level and dynamics of wealth by country, including many of Sida’s partner countries. This offers a deeper insight into economic development, nuancing the money metric measures of income that are discussing economic development. This brief summarises the global trends in how countries manage their wealth, analyses Sida’s partner countries in relation to the international trends and discusses implications for Sida’s work. We put special focus on the analysis of natural capital – the asset most poor are highly dependent upon.

## INTRODUCTION

Every economy is endowed with resources that can be used for consumption today or invested in productive assets for tomorrow. A large asset base is both a prerequisite for, and a consequence of, economic development, which underlines the importance of well-managed asset base in low-income countries aspiring to reach high levels of income. One can then think of the country’s asset base as a “stock” variable and the country’s GDP or GNI as the return on wealth (a “flow” variable).<sup>2</sup> That is, the stock of wealth provides information about the long-term health of an economy; its capacity to sustain growth in income flows (taking depreciation and depletion of assets into account) and whether investments and accumulation of assets are keeping pace with population growth. Sustainable use of natural resources and investment in renewable assets is a natural part of this equation.

The World Bank’s Changing Wealth of Nations (2018)<sup>3</sup> takes stock of countries’ productive assets and defines their wealth as a portfolio of assets including produced, natural, and human capital as well as net foreign assets (see Box 1). This brief draws heavily on the findings of the report, and uses the data produced for the report to analyse Sida’s partner countries’ performance.

### BOX 1: Different Types of Wealth

**Produced Capital** refers to machinery, buildings, equipment, and urban land measured at market prices.

**Natural Capital** includes energy, minerals, agricultural land, forests, and terrestrial protected areas measured at the discounted sum of the value of the rents generated over the lifetime of the asset.

**Human Capital** is measured as the discounted value of earnings over a person’s lifetime.

**Net Foreign Assets** refers to the sum of country’s external assets and liabilities (for example, foreign direct investment and reserve assets)

Source: World Bank (2018) Changing Wealth of Nations.

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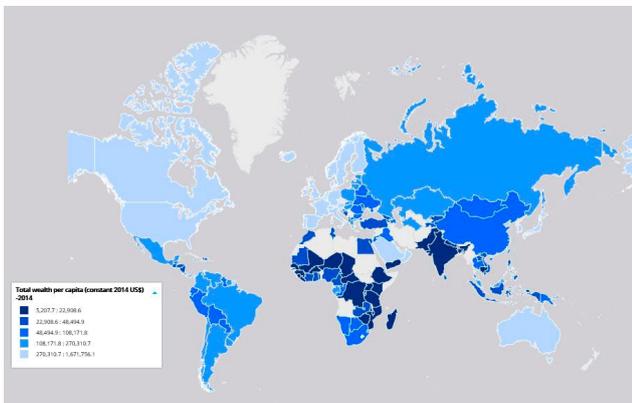
<sup>2</sup> GDP = Gross Domestic Product, GNI = Gross National Income

<sup>3</sup> World Bank Group (2018) “Changing Wealth of Nations 2018, Building a Sustainable Future”, Washington DC.

## GLOBAL WEALTH DYNAMICS

The global wealth, that lays the foundation for income growth and consequently poverty reduction, is not equally distributed across the world's population. In fact, 72 percent of wealth is held by high-income countries and an additional 22 percent by upper-middle income countries (World Bank 2018, p. 46). Only one percent of the global wealth is shared by low-income countries. Many of Sida's partner countries end up in the list of bottom 10 countries with least per capita wealth: Gambia, Burundi, Mozambique, Comoros, Guinea, Madagascar, Liberia, Malawi, Niger, and DRC (Sida's partner countries in bold).

Figure 1: Global wealth per capita in 2014



Source: Authors' calculations based on Wealth of Nations Database. Note: Lighter blue corresponds to higher wealth.

The total wealth of nations has increased rapidly during the past 20 years in all regions, although the progress has been uneven. Global wealth increased by 66 percent from 1995 to 2014 from \$690 trillion to \$1,143 trillion, in constant 2014 U.S. dollars. This surge was largely driven by the significant increase in the level of wealth and the share held by middle-income countries, from 19 to 28 percent, while the share of high-income OECD countries declined from 75 to 65 percent. This change largely reflects the rise of assets held in East Asia and Pacific and South Asia, in particular China and India. The share of global wealth held by countries categorized as low-income countries in 2014, mainly in Sub-Saharan Africa, barely moved from less than 1 percent throughout the period.

Moreover, while total wealth grew almost everywhere, per capita wealth did not (World Bank 2018, p. 6). Not surprisingly there were rapid growth in

wealth per capita in East Asia and Pacific and South Asia and most other regions also benefited from gains in wealth per capita. However, in Sub-Saharan Africa per capita wealth fell by 2 percent, in part because of rapid population growth in some of the largest countries (such as Nigeria and Tanzania), but also because of slow wealth growth in large economies such as South Africa. Hence, although the total asset base is increasing also in Africa, it is not growing fast enough to keep up with high population growth. This presents a daunting challenge for the African countries to eradicate poverty through higher income levels per capita, with a decreasing per capita asset base.

## COMPOSITION OF WEALTH VARIES BY INCOME GROUP

The national composition of wealth is closely related to the level of economic development in the country in question. While natural capital accounts for 9 percent of wealth globally, it makes up nearly half (47 percent) of the wealth in low income countries, and 27 percent of wealth in lower-middle-income countries (see Table 1). In addition, while the share of natural capital decreases markedly as countries get richer, getting rich is not about liquidating natural capital to build other assets— in fact, the levels of natural capital per person in high-income OECD countries was three times that in low-income countries in 2014, \$19,525 versus \$6,421 (even though the share of natural capital in total wealth in high-income OECD countries accounted for only 3 percent). Growth is in part about more efficient use of natural capital and investing the earnings from natural capital sources into infrastructure and education – but also using new types of natural resources and reinvesting in traditional natural resources to ensure sustainability. Building a solid asset base for long-term growth requires ensuring access to different types of assets as there is not full substitutability between natural assets and other assets, or between different sorts of natural assets, which is further discussed below. Ideally, reaching high-income status should be built on sustainable use of natural resources, while building human and produced capital even faster so that the relative importance and reliance of natural resources goes down.

**Table 1: Wealth by type of asset and income group, 2014**

Type of asset	Low-income countries (%)	Lower-middle-income countries (%)	Upper-middle-income countries (%)	High-income Non-OECD countries (%)	High-income OECD countries (%)	World (%)
Produced capital	14	25	25	22	28	27
Natural capital	47	27	17	30	3	9
Human capital	41	51	58	42	70	64
Net foreign assets	-2	-3	0	5	-1	0
Total wealth	100	100	100	100	100	100
Total wealth, US\$ billion	\$7,161	\$70,718	\$247,793	\$76,179	\$741,398	\$1,143,249
Total wealth per capita	\$13,629	\$25,948	\$112,798	\$264,998	\$708,389	\$168,580

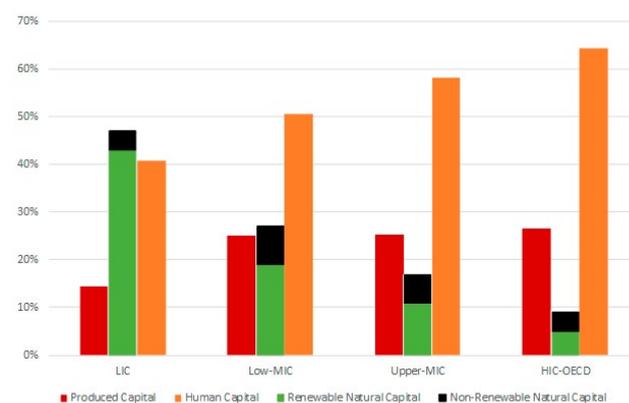
Source: Changing Wealth of Nations 2018, World Bank, page 8, table ES.1.

Human capital, measured as the discounted value of earnings over a person's lifetime, accounts for 64 percent of global wealth. It is the most important component of wealth at all income levels, apart from in low-income countries, where natural capital dominates. In low-income countries, human capital is 41 percent of total wealth, and in high-income OECD countries as much as 70 percent. In per capita terms, the total value of the global human capital wealth stood at \$108,654 per person in 2014 versus \$88,874 in 1995, but as a share of total global wealth it has decreased somewhat from 69 to 64 percent during the period. This relative decline is mainly due to the shift in many high-income OECD countries, as well as in China, where the aging of the labor force has slowed down the increase in human capital base while the asset base in produced capital has continued to grow rapidly. In most developing countries, however, the labor force is still growing rapidly and consequently the share of human capital in total wealth is rising, but as their share of the global wealth is small, the overall trend is dominated by the relative changes in high-income countries.

Globally, women account for only 38 percent of human capital wealth compared to 62 percent for men. This is due to the way human capital is calculated as the sum of expected earnings over a life-time. Women's lower earnings, lower labor force participation, and fewer average hours of work weigh down the total value of female labor force. According to the World Bank, achieving gender parity in earnings would generate an 18 percent increase in human capital wealth overnight (World Bank 2018, p. 129). Globally, the loss in human capital wealth due to gender inequality is estimated at \$160.2 trillion if we simply assume that women would participate equally in the labor market and earn as much as men.

Finally, produced capital accounts for 27 percent of global wealth. It should come as no surprise that the share of produced capital relative to other assets is low in low-income countries, at 14 percent of total assets. However, already lower-middle income countries have a share of 25 percent and that share stays constant as the income-level increases. Thus, it appears that the big shift when moving from low-income country to middle-income country status is a decline in natural capital dependence as a share of total wealth, combined with an increase in both produced and human capital. The big shift from middle-income to high income country status, instead, is further decline in natural capital dependence and further increase in human capital, while the share of produced capital stays the same (Figure 2).

**Figure 2: Shares of total wealth by income group, 2014**



Source: Own calculations from the Changing Wealth of Nations data (2018).

## INCREASING HUMAN CAPITAL FOR DEVELOPMENT

As the importance of human capital wealth is increasing over all income levels, it should be recognized as an important driver of development. Human capital accounted for over 80 % of the growth of wealth in LICs 1995-2014 and above half of the growth amongst other income levels. Hence, investing in education and health care provides not only benefits to people's social and physical health, but also to economic development. Moreover, human capital contributes to the sustainability of economic progress as a broad workforce makes it easier for the economy to adopt to the changing nature of jobs. As opposed to other assets, an educated population is more likely to adapt to technological reforms or to population growth while other assets, such as natural capital endowments, are less responsive to such changes.

To track the investments in human capital globally, the World Bank recently presented the Human Capital Index (HCI), qualifying the contribution of health and education to the productivity of the next generation of workers. The index is meant to help countries prospect their potential future income generated from current human capital investments. Using this long-term perspective on economic development increases countries' abilities to plan and act sustainably for their future wealth.

### A CLOSER LOOK AT NATURAL CAPITAL

Natural capital is different to other assets in many ways. It is the stock of renewable assets (like forests, water, farmland, and biodiversity) and non-renewable assets (like minerals) that generate direct income flows, while at the same time it is also a system that all other production and existence is indirectly dependent on. It provides direct benefits to people in the form of flows of goods and services over time, such as food, timber, fiber, energy, clean water, clean air and protection. Hence, compared to other types of capital it has lower substitutability with other assets but also in-between natural capital itself. Substituting human capital with produced capital is possible to some extent, but there is no substitute for arable land in agriculture. Given the low substitutability within and between asset types, it is important to ensure sustainable management of all types of assets in addition to aspiring for a higher combined level of assets. Furthermore, many ecosystem services do not have a market price, although they have a direct impact on economic growth and productivity. For instance, pollination services are a case in point as they are of crucial importance for agricultural productivity. The discussion in this paper focuses on the market value of natural assets such as land and forest, and thus fails to account for the greater real value of environment and ecosystem services.

There is also a clear distinction between different types of natural capital, most notably between renewables and non-renewables. For a resource to be renewable, the extraction of it should not exceed the rate of renewal (for example in forestry or fishing). For non-renewables the depletion should not exceed the rate of finding new sources or alternative assets (for example finding new sources of fossil fuel or switching to alternative energy). Furthermore, use of one type of natural capital can damage (e.g. via pollution) the renewal of the stock of another type of natural capital (such as forests and soil), the return

from it (crop yields, fish, etc) as well as other types of capital (health of workers, climate sensitive infrastructure, etc).

### THE POOR AND NATURAL RESOURCES

Just like low-income countries are more dependent on natural assets compared to high-income countries, also people living in poverty are disproportionately dependent on access to natural resources. Own labor combined with access to land, fishery or forest are important sources of livelihood both in terms of income and consumption for many. According to ILO (2018)<sup>4</sup> 1.2 billion jobs, or 40 per cent of total world employment, most of which are in Africa and Asia and the Pacific, depend directly on ecosystem services and thus are highly dependent on a stable environment. Not all of these services are measured in the natural capital estimates for the wealth of nations, and thus the value of natural assets discussed in this brief should be interpreted with caution. Yet, economic growth and jobs that are directly dependent on natural resources are under a threat due to environmental degradation and climate change. Even in a scenario of effective climate change mitigation, temperature increases resulting from climate change are estimated to lead to the loss of 72 million full-time jobs by 2030 due to heat stress. Developing countries and the most vulnerable population groups are most exposed to these impacts. Thus, sustainable economic growth requires an understanding of the interdependencies and trade-offs between the economy and environment.

While poor people's lives are more intimately tied to natural resources than other groups', the relationship between poverty and natural capital is not straightforward (WAVES 2015)<sup>5</sup>. In many cases, natural resources and access to ecosystem services provides a safety net for people living in poverty. Sometimes, natural capital can also offer a route out of poverty by realizing income from natural resources directly, or through employment in natural resource management. Occasionally, however, natural capital acts as a poverty trap where people's lives become bound to underproductive or degraded land and water bodies in absence of other income-earning opportunities or possibilities to upgrade land and other natural assets. In addition, while wealthier segments of society can substitute between forms of capital, people living in

4 ILO (2018) "World Employment Social Outlook, Greening with Jobs", ILO, Geneva.

5 WAVES (2015) "Natural Capital Accounting: Providing Information for Poverty Reduction", Policy Briefing.

poverty cannot and therefore depend completely on the condition of their natural capital and are highly vulnerable to natural disasters and shocks.

The use of natural capital, and its transformation to other forms of capital, is still the principal development strategy for many poor countries. Yet, their ability to use their natural assets to support sustainable growth depends on the type of natural assets they possess, and the composition between renewable and non-renewable assets.

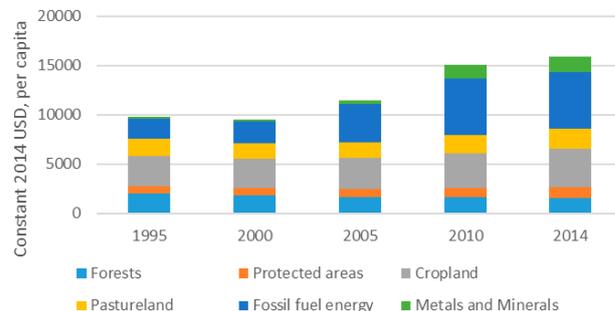
### GLOBAL TRENDS IN NATURAL CAPITAL

At the global level, the overall value of natural capital assets doubled between 1995 and 2014 (see figure 3). Most of the growth was in non-renewables (308 %) owing to changes in both volume and price, while renewable resources grew by 44 percent. Fossil fuel energy increased the most in both extent and value during the same period. (World Bank, *Wealth of Nations 2018*, p. 13)

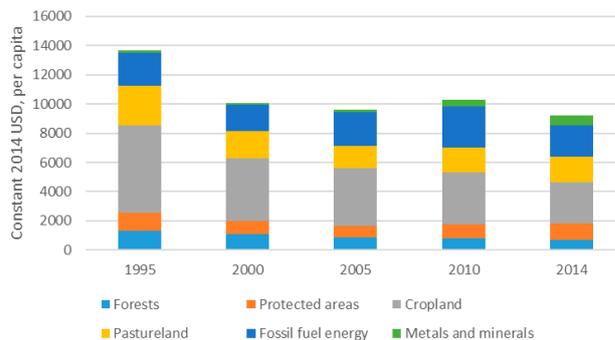
When it comes to the development of different types of renewable capital during this period, the extent of forestland has declined by 4 % as forests have been converted into agricultural or other types of lands, most noticeably in the regions of Sub-Saharan Africa and Latin America. Due to population growth, the global per capita asset value of forests declined simultaneously. In contrast, protected areas have increased both in size and in asset value, reflecting an increase in coverage by 65 % in LICs and MICs. Likewise, agricultural lands have risen sharply, especially in South Asia and Latin America. However, the rise in the value from non-renewables has outgrown these global increases, resulting in increased focus on non-renewable natural resources in many countries.

Despite rapid growth in the value of agricultural land in Sub-Saharan Africa (SSA), the region did not keep pace with population growth in 18 out of the 35 countries in the data set, resulting in a decline in per capita agricultural land value 1995-2014. As mentioned, the expansion of the agricultural land took place partly at the expense of forest land, which declined by 4 percent in the region, causing the value of forest land decline per capita (even though the asset value remained constant). This has resulted in an inverted SSA-trend in natural resource per capita wealth, compared to the global development 1995-2014 (See Figure 4).

**Figure 3: Global Trend – Per capita natural capital**



**Figure 4: SSA – Per capita natural capital**



Data source Fig. 3 & 4: *Changing Wealth of Nations* (2018).

### CARBON WEALTH – A DOUBLE EDGED SWORD

The share of fossil fuel energy is becoming an increasingly important share of natural resource wealth in many countries. The share is highest in the MENA region (30 percent of total wealth, on average) but is also an important component in SSA (10 percent of total wealth). Recently, the value of global non-renewable assets has increased substantially, generating direct incomes to subsoil-rich nations. However, recovering subsoil assets alone will not secure sustainable economic development for the nation; out of the 24 states remaining in low income category since 1995, 12 are considered resource rich. The growth of these assets both in extent and value calls for a recognition of the implications of carbon-based growth, both to the global community and to the economic build-up of states.

Starting with the latter, nations dependent on incomes from fossil fuel face oftentimes major challenges. Firstly, oil-rich countries are vulnerable to price shocks as the value of their assets is dependent on the energy priorities of other states. Many countries had to experience the effects of price volatility during the global oil price drop in 2014 when export

revenues of oil exporters suddenly decreased substantially. Secondly, monetizing carbon wealth requires substantial up-front investment compared to other industries, and the future revenues are both uncertain and realized with a time-lag. Finally, many carbon rich nations put all their eggs into one basket as their economies are commonly heavily reliant on extractive industries and thus vulnerable to price and demand swings of the global market. Public investment in infrastructure and human capital is often geared to serve the extractive industries at the expense of supporting broad-based economies, which increases their risk exposure. The transformation of non-renewable assets to other forms of capital is commonly difficult and countries may end up with one-sided economic structure where the carbon assets have turned into a curse for inclusive economic development. [Changing Wealth of Nations: p.97]

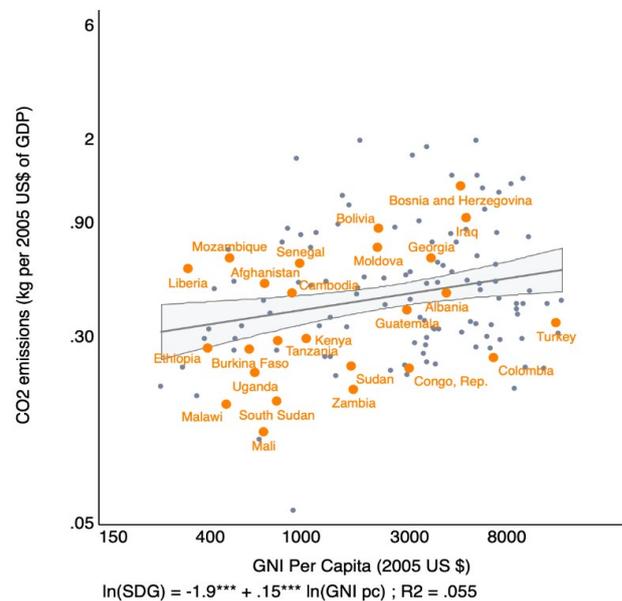
At the current depletion rates, natural resource reserves are expected to last for some 45 years, and many countries bank on these extra resources for their economic development. However, to reach the international targets for climate change mitigation, large parts of these reserves will have to remain unextracted. As the global transition to coal-free economy proceeds, much of the current sub-soil assets may become so-called stranded assets with no future value reversing the expected calculations on future profits and turning the investment in extractive industries into sunk costs.

Apart from the internal economic challenges in carbon-rich nations, the external biological footprint of the industries present in the oil-rich states makes a huge threat to the ongoing global work on climate change. There is already a contradiction between the industrialization of poor states as opposed to the goal of decreasing emissions, as traditional modernization is usually associated with greater ecological footprints.

Figure 5 shows the cross-country relationship between CO2 emissions (kg) per USD of GDP and income per capita, where the fitted line represents the typical level of CO2 emissions for a given income per capita level. The figure confirms the positive relationship between emissions and GDP per capita, in the range of income per capita levels for those countries included (low- and middle-income countries).<sup>6</sup> Sida's partner countries are highlighted and those

that are above the line have CO2 emissions that are higher than expected for their income level and those that are below have lower than expected. Among those Sida partner countries that have significantly higher CO2 emissions than expected for their income level are Liberia, Mozambique, Moldova, Georgia, Afghanistan, Bosnia and Herzegovina, Senegal, Bolivia and Iraq. There are country-specific explanations for why this is the case, related to the structure of their economies and the asset mix that structure is based on.

Figure 5: Emissions and GNI per capita



Source: Own calculations based on World Development Indicators.

## WEALTH IN SIDA'S PARTNER COUNTRIES

The composition of 2014 wealth accounts in Sida's Partner Countries (SPC) shows interesting variation (Figure 6) – while some partner countries have asset base above the average of upper-middle income countries, many are stuck around the modest levels of low-income country average. This variation is an expected result as the partner economies face widely differing economic circumstances in terms of their level of economic development, geographical or geopolitical position, access to natural resources, and type of political institutions and macroeconomic policy frameworks. Whilst the Russian Federation represents the highest per capita wealth of the SPCs in 2014, Mozambique corresponds to the lowest<sup>7</sup>. In

<sup>6</sup> According to the Kuznets curve, CO2 emissions decrease per unit of GDP after a certain income per capita level.

<sup>7</sup> Mozambique has recently discovered new sub-soil assets that are expected to generate high income flows in the future. However, these assets have not yet been extracted and their future value is still uncertain.

accordance with the global trends, natural capital and human capital corresponds to the greatest shares of total wealth in low-income SPCs, whereas the share of produced capital is higher in middle-income SPCs. Also, the share of human capital is larger in countries with higher levels of wealth, which rhymes well with the global trends outlined previously (See Figure 2).

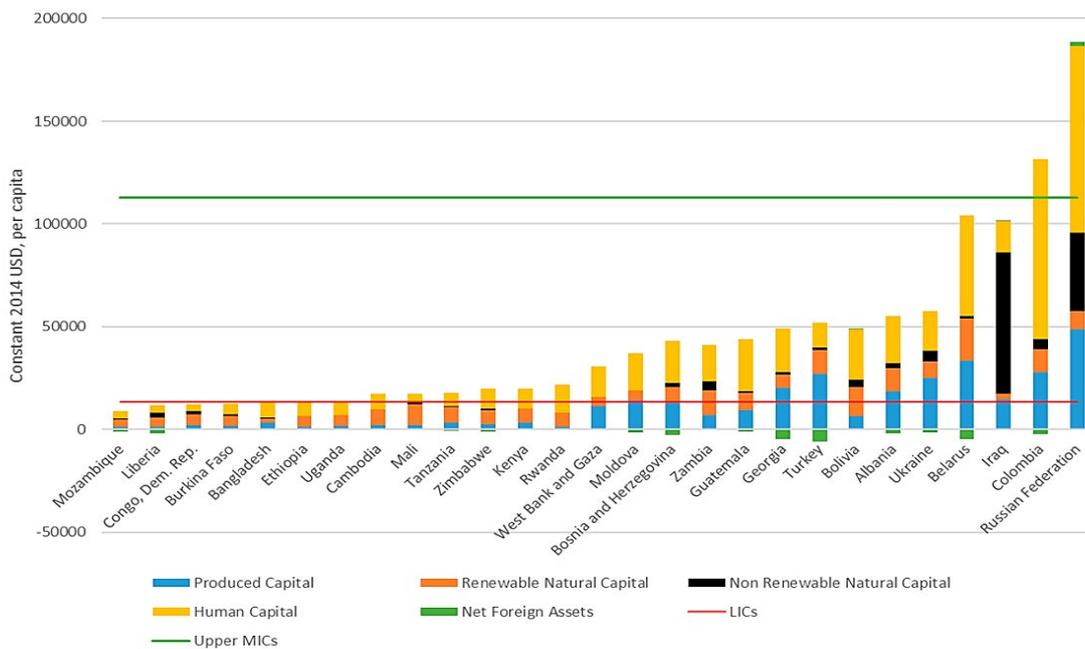
Taking a closer look at the natural resources in Sida's partner countries, the dynamics vary from oil-rich Iraq to natural resource poor Moldova that has land as its main natural asset (see Figure 7). While low-income countries are generally more dependent on their natural capital, the level of natural resource dependency per se does not necessarily tell us much about the potential for sustainable and inclusive economic development in the country. Instead, it is important to consider the composition of natural assets in terms of renewable and non-renewable assets to get further insights into the sustainability of the economy.

An interesting difference in wealth composition among SPCs is the share of non-renewable natural resources – carbon-based wealth – in their asset base.

Non-renewable natural resources have increased globally by 308 % in value between 1995 and 2014, which has substantially increased the overall assets in some SPCs. In countries with high levels of fossil fuel or metals and minerals, such as in Iraq, this has translated into a boost in total wealth, while non-oil rich countries have experienced more modest increases in their wealth. However, due to price uncertainty and the limited stock of such resources, the long-term implications of such a wealth boost is unclear. It can either imply greater opportunities for these countries to invest in human capital and put the country

to a sustainable and higher long-term growth-path, or simply generate a greater dependency in non-renewables, making their economies more fragile to future shocks. To date, the SPCs with high non-renewable endowments are yet to show a solid record of investing their revenues in inclusive development.

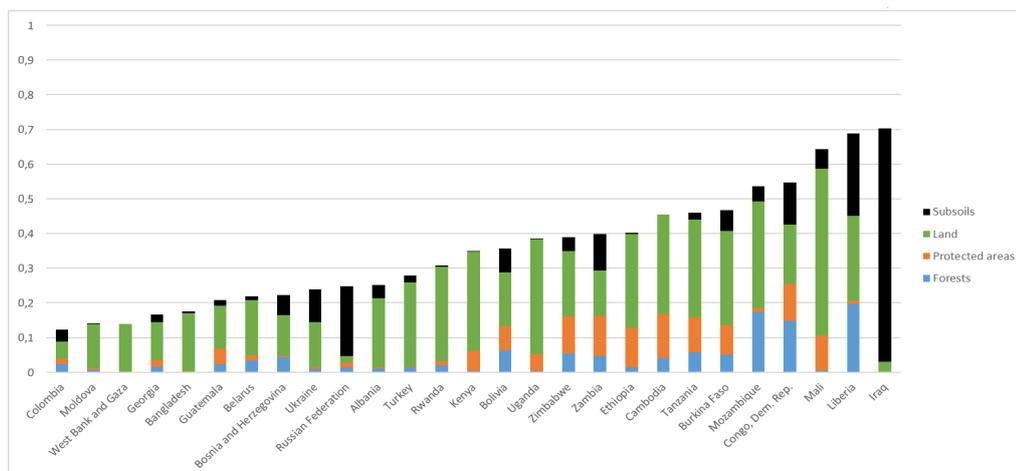
Figure 6: Sida's partner countries – per capita wealth, 2014



Data source: Changing Wealth of Nations (2018).

Note: No data available for Afghanistan, Cuba, Kosovo, Myanmar, Serbia, Somalia, South Sudan, Sudan and Syria.

**Figure 7: Sida's partner countries – total natural capital, 2014**



Data source: Changing Wealth of Nations (2018)

Note: No data available for Afghanistan, Cuba, Kosovo, Myanmar, Serbia, Somalia, South Sudan, Sudan and Syria.

Out of SPCs, only two countries, namely Iraq and the Russian Federation, rely heavily (above 50 % of their total natural capital) on non-renewables, whereas the remaining countries generate most of their natural resource incomes from agricultural land. Wealth from forest industries and protected areas is more common in many SPCs, such as Zimbabwe, Zambia, Ethiopia, Cambodia and Tanzania, that rely heavily on renewable natural capital for their economic development.

## TOWARDS A NEW GROWTH PARADIGM

There is an urgent need to steer the economy towards a system where all assets are maintained in a sustainable manner to support inclusive development. This includes counting for the full value of natural resources<sup>8</sup> and striving for a (global) long-term balance between the development of those resources and the extent they are extracted or degraded by

<sup>8</sup> Initiatives in this domain include the UN System of Environmental and Economic Accounting (SEEA) that integrates economic and environmental statistical data to better understand the connection between the economy and the state of the environment as well as the actual value of natural capital. In addition to the SEEA, the World Bank Group has started a partnership with the Wealth Accounting and the Valuation of Ecosystem Services (WAVES) to find new ways of measuring natural resources that are not included in the SEEA. These types of natural capital include ecosystem services and other natural resources that are not traded or marketed and therefore harder to measure. The partnership aims to include natural resources into national economic accounts to promote sustainable development by managing the natural capital accordingly. Material Flow Accounting (MFA) is another accounting framework that provides information on material inputs, the changes in material stocks as well as the material outputs in a country. This allows for a long-term national planning for the material flows in a country. The MFA is used as a regular framework at the OECD to report on green growth strategy and the Intergovernmental Panel on Climate Change (IPCC) guidelines for the UN Framework Convention on Climate Change (UNFCCC).

negative environmental effects, allowing low income countries to build their infrastructure and human capital.

Traditionally, the long-term path out of poverty for a country has been through an increased share of manufacturing and industry, and later a shift towards services (Figure 10 present current sector distribution by region). Manufacturing has paved the way for previously agricultural-based societies through three important components for inclusive growth; potential for productivity improvements, increasing markets through globalization, and labour intensity. Yet, the growth pattern that has served the previously industrialised countries is no longer the trend that current low-income and lower-middle income countries are following. There is a small shift in Africa's economic structure since 2000, but rather than being a sign of delayed industrialization, it signals a movement of labour into trade and distribution services. While these service sectors are also labour intensive, they have only marginally higher productivity than agriculture, and their productivity has fallen with the entry of new workers. There is also limited ability for trade to reach larger markets through globalization. Hence, those structural changes observed represent a symptom of poverty rather than a source of poverty reduction.

## Box 2: Short-Term Priorities in the Natural Resource Sector of Liberia: The complex relationship between GDP growth and asset diversification

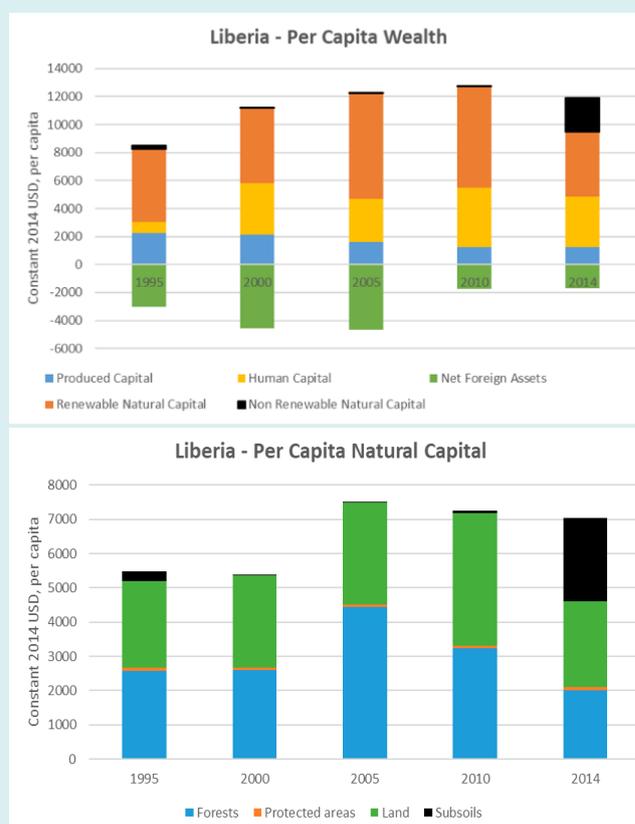
The international community commonly describes the last two decades of economic development in Liberia as a success story. Yet, the development process of the country faces massive challenges in the context of post-conflict economic build-up. The year of 2003 welcomed an end to the 14-year civil war – a conflict born out of an exploitation of the Liberian rainforest industry. Over the following decade since the end of civil war, an attempt to move the country towards reconciliation by rebuilding the institutional and infrastructural grounds of the state, was carried out. The country started focusing on increasing FDI flows into the natural resource sector by once again centralizing and controlling timber resources.

The investments, mainly targeting the industries of palm oil, forestry, rubber and iron ore, was expected to rapidly increase growth and trickle down to provide job opportunities. While economic growth indeed increased, reaching 8,3 % in 2013, the economic boost lacked both sustainability and inclusiveness. A combination of rapid exploitation of the renewable resources (forests & land), higher investments in fossil fuel industries and failures to re-invest the generated income in human capital, resulted inconsistently high poverty rates (50,9 % of the population in 2016 were living below the national poverty line according to WB poverty headcount ratio). While per capita wealth increased substantially between 1995 and 2014, it planged out and eventually decreased between 2010 and 2014, replacing renewable based wealth with carbon-based wealth (see Figure 8 and 9).

As in the case prior to the civil war, people obtaining weak or no access to political, natural or financial resources are unlikely to enjoy the benefits from the Liberian natural resource-based incomes, regulated in the country's economic policy framework.

This is further mirrored in the critical values of Liberia's Adjusted Net Savings (ANS), showing that the country's long-term savings have diminished due to the costs of pollution and resource exploitation (Changing Wealth of Nations: p.74).

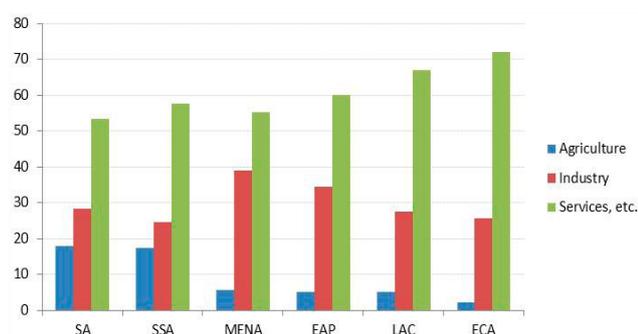
The experience of Liberia reminds us that it is important to recognize both the opportunities and the risks that are present in natural resource-based economies. The opportunities lie in the function of natural capital as a fuel to other forms of capital (generating government income and employment opportunities), whereas the risks are captured in the ownership and potential exploitation of such resources (since unfair ownership may foster conflicts and as exploitation may crowd out the most crucial income to the nation).



Data source: Changing Wealth of Nations (2018)

Reference: Agnieszka Paczynska (2016): Liberia Rising? Foreign Direct Investment, Persistent Inequalities and Political Tensions, Peacebuilding, DOI.

**Figure 8: Shares of value added by sector (% of gdp), 2015**



Source: World Development Indicators

However, the traditional growth path that goes from heavy reliance on natural resources and agriculture to increased reliance on produced capital in the manufacturing sector and finally into services sector with high reliance on human capital starts showing limitations. First, the enormous growth through globalization should not be taken for granted, not least due to increased protectionism and awareness of environmental costs from production as well as transportation. Secondly, automatization makes manufacturing less labour intensive, at least when it comes to low-skilled jobs. Few question if this is still an important path out of poverty for some of the remaining LICs, but rather if this should be the standard model after which policy advice is designed. Hence, in parallel, there are discussions about the future of jobs and new opportunities in the service sector, through digitalization, and positive effects from disruptive technologies<sup>9</sup>.

In order to facilitate the transition to a more environmentally sustainable economic structure investment in innovation and human capital is needed. As discussed above, human capital wealth is the only asset category that is consistently growing as countries get richer, and the importance of human capital as a driver of development is expected to increase in the future. Technology is changing the nature of work where higher-skilled jobs will become increasingly more important. Education will be a key ingredient when adjusting to a new sustainable growth model, but instead of higher investments in human capital, many countries are facing a crisis in education and learning.

The World Development Report 2018<sup>10</sup> found that although most children in Africa and South Asia attend primary school, their learning is extremely poor. Less than half of the fifth graders in public schools in India, Tanzania, Kenya or Uganda can read at the expected third-grade level. There is also evidence on how lack of food and nutrition in the early years results in lifelong effects on a person's ability to develop and hence fully contribute to and benefit from social advancement.

Investing in the human capital – not least health, education and learning – of the next generation will be decisive for countries ability to develop and grow through sustainable inclusive economic transition and compete in a global economy. The urgency of acting on this agenda is not only to ensure that the goal of ending extreme poverty and create sustainable inclusive economic development, but also – through improved social fabric – avoid that peace, stability, and prosperity for large parts of the world are threatened. This is especially delicate for pre- and early-demographic dividend countries that risk having a large young population unemployed.

## CONCLUDING REMARKS

The global wealth of nations is currently at all-time-high creating a solid basis for continued economic prosperity. However, the total wealth as well as the returns from it are highly unequally distributed across countries, leaving some nations and groups in material poverty. Furthermore, the composition of asset base varies between countries – while low-income countries are disproportionately dependent on natural resources, human capital dominates the assets of the high-income countries highlighting the importance of human capital as a driver of growth.

Natural capital plays a unique role in the mix of productive assets as it cannot be easily substituted by other types of assets, and as it lays the foundation for economic production while it simultaneously is suffering from degradation caused by the economic advances. Finding sustainable pathways for economic development without depleting the natural resource base that many people living in poverty are particularly dependent on is one of the main political challenges to promote inclusive and prosperous societies.

<sup>9</sup> World Bank Group [2019] "Global Development Report 2019: The Changing Nature of Jobs".

<sup>10</sup> The World Bank [2017] World Development Report 2018: Learning to Realize Education's Promise.

While agreeing on the overall principles of sustainable economic development and poverty reduction may be non-controversial, exactly how it should be done is not. Many difficulties are a result of environmental issues being a public good problem, which affect both the set of feasible policy instruments, and the ownership of the problem. One dimension of the discussion is to what extent lower income countries, with a small per capita environmental footprint who bear the main burden of environmental degradation, should take environmental sustainability into account, when high-income countries have been allowed to grow their economies at the expense of the environment. Economic growth for these countries is fundamental in reducing poverty so the discussion is more about how to promote a smarter and more sustainable development.

Entry points and approaches could therefore be several:

- International mechanisms should be put in place to internalise the global cost of environmental pollution and compensate for the full cost of use. While the poor had little to do with creating environmental problems, such as climate change, they are typically more vulnerable due to overexposure, less ability to cope and recover, negative coping mechanisms (such as stop sending the children to school), and less savings and investments as a result of insecurity; suggesting the global community need to collectively support affected countries.
- Creating incentives for carbon-rich countries to diversify their economic base and preparing both producing countries and oil-importing countries for carbon free technologies will be crucial for ensuring global production within planetary boundaries – even when it risks the value of some non-renewable natural assets.
- Many low-income countries and people in poverty are heavily dependent on ecosystem services and need – for their own sake – to take the sustainability of their direct natural assets into account. Since the global economic system will change and the new economic incentives and values will affect the success of future growth models, it is important that low-income countries avoid those paths that only lead to short term prosperity.
- Transitioning beyond heavily polluting industrial revolution to a new growth path based on technological innovation and new forms of work requires higher investment in human capital in order for countries to adopt to new requirements at the labour market and to capitalise on the new opportunities. Yet, as structural change creates winners as well as losers, it will be equally important to create mechanisms to compensate for the groups that do not benefit from structural transformation and facilitate transition towards a new more balanced growth path.