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Vulnerability Profile of Nepal

SUSTAINABLE DEVELOPMENT GOALS

Contents

Nepal: graduation road map at a glance

March 2015: Nepal, for the first time, met two of the three thresholds of graduation from LDC status (see p. 12 and p. 16). The Committee for Development Policy (CDP) accordingly found Nepal pre-eligible for graduation. This finding brought no immediate change to Nepal's entitlement to LDC treatment. The CDP will re-examine the potential graduation case of Nepal in its next triennial review of the list of LDCs in March 2018.

March 2018: If Nepal again meets two of the three graduation thresholds, the CDP will normally find the country fully eligible for graduation, and accordingly recommend Nepal's graduation from LDC status in its report to the UN Economic and Social Council (ECOSOC).

July 2018: ECOSOC will normally endorse the CDP's recommendation to graduate Nepal from LDC status.

December 2018: The UN General Assembly, in turn, will normally endorse the recommendation to graduate Nepal, through a resolution formally stating the UN decision to take Nepal out of the list of LDCs. On the day of adoption of this resolution, Nepal will enter the standard (normally three-year) grace period during which the country retains its LDC status and is expected to negotiate, with its development partners, a "smooth transition" to post-LDC status.

NB: *The adverb "normally" qualifying the action of the CDP, ECOSOC and the General Assembly indicates that the relevant decisions by these three bodies are expected to take place in accordance with a "normal" calendar. However, flexibility from this normal timeframe can take place at the discretion of any relevant body if that is deemed to be in the interest of the country under review:*

(i) the CDP may delay its decision to recommend the graduation of a country; or it may never resolve to make this recommendation;

(ii) the Economic and Social Council may delay its action on a CDP recommendation to graduate a country; or it may never resolve to endorse this recommendation;

(iii) the General Assembly may avail itself of the possibility of delaying its endorsement of a recommendation to graduate the country, or it may never resolve to endorse this recommendation; it may also, if it endorses the recommendation, decide to grant the country a grace period of a duration different from the standard three-year prescription.

December 2021: At the end of the grace period, Nepal will officially graduate from LDC status. Yet it may continue, for a period of time, to have the benefit of LDC treatment under "smooth transition" measures.

There are two types of smooth transition measures: (i) those that are negotiated with development partners on a case-by-case basis; and (ii) those that are systemic, i.e. established for all graduating LDCs and automatically extended to them.

1. Introduction: historical and institutional context

Nepal was on the first UN list of LDCs in 1971. In its 2015 review of the UN list of Least Developed Countries (LDCs) in March 2015, the United Nations Committee for Development Policy (CDP) observed that Nepal was meeting two of the three thresholds of graduation from LDC status, namely, the graduation borders relevant to the human assets and economic vulnerability criteria. The CDP accordingly found that Nepal was meeting "*eligibility criteria for graduation for the first time*", a preliminary finding that is commonly referred to as a situation of "pre-eligibility" for graduation from LDC status. This notion will normally lead to a situation of full eligibility if the country meets the same graduation thresholds three years later, in accordance with the graduation rule. Nepal will normally "*be considered for graduation at the next triennial review* [of the list of LDCs] *in 2018*[1]" if the country's performance by then has remained above two graduation thresholds.

The CDP, in the 2015 review of the list, observed Nepal's potential graduation prospects as being determined by the performance described in Table 1. It noted that it would be the first time that a country graduates from LDC status without meeting the per capita income threshold ("… *while still being a low-income country*"[2]).

This Profile was prepared in accordance with General Assembly resolution 59/209 of 20 December 2004, which decided that "after a country has met the criteria for graduation for the first time, UNCTAD is mandated to prepare a vulnerability profile on the identified country to be taken into account by the Committee for Development Policy at its subsequent triennial review"[3]. It is an input to the work of the CDP in answering the question of the graduation of Nepal from LDC status.

Sections 2, 3 and 4 examine the situation of Nepal under the graduation thresholds relevant to the three criteria for identifying LDCs, namely the per capita income criteria, the human assets criterion, and the economic vulnerability criterion, respectively. Section 5 examines the extent to which there has been genuine structural economic progress in Nepal, thereby casting further light on the pertinence of a change of status, for Nepal, in the forseeable future.

Graphs 1, 2 and 3 illustrate Nepal's evolution, since 1991, under the graduation thresholds relevant to the per capita income criterion, the human assets criterion, and the economic vulnerability criterion, respectively. The data indicate the country's distance to the graduation threshold, as well as the distance to the admission threshold (the level for admitting new countries into the list). All data through the eight triennial reviews of the list of LDCs after 1991 (1994, 1997, 2000, 2003, 2006, 2009, 2012, 2015) have been standardized in index form, with the graduation threshold standing out as the 100 basis. For example, a score of 53 observed in 2015 under the first criterion indicates that Nepal stands at 53% of the relevant graduation threshold.

[1] Committee for Development Policy, Report on the seventeenth session (23-27 March 2015), Economic and Social Council, Official Records, 2015, Supplement No. 13, E/2015/33, para. 59.
[2] Ibid., p.19
[3] General Assembly resolution A/RES/59/209, *Smooth transition strategy for countries graduating from the list of least developed countries*, para. 3(b), 20 December 2004.

Table 1
Nepal's pre-eligibility for graduation from LDC status in the 2015 review of the list of LDCs

	PER CAPITA INCOME	**HUMAN ASSETS**	**ECONOMIC VULNERABILITY**
To pre-qualify for graduation in the 2015 review of the list, an LDC had to meet at least two of the following three graduation thresholds…	…to have a gross national income per capita of at least **US $1,242** (2011-2013 three-year average)	…to have a score >66 under the Human Assets Index (HAI), extreme values of which, among LDCs, were 7.8 (lowest human assets) and 87.6 (highest human assets)	…to have a score <32 under the Economic Vulnerability Index (EVI), extreme values of whih, among LDCs, were 71.5 (highest vulnerability) and 24.9 (lowest vulnerability)
Nepal's score under the relevant criterion	$659 (3-year average GNI per capita)	68.7 (Human Assets Index score)	26.2 (Economic Vulnerability Index score)
Nepal's score in % of the graduation threshold	at **53.1%** of the graduation threshold	at **104.1%** of the graduation threshold	at **81.9%** of the graduation threshold *(see footnote 34)*

Source: UNCTAD, based on CDP data

2. Nepal and the per capita income criterion

Considerations on (low) per capita income levels have always been key to the identification of LDCs. Per capita income summarily measures how well off the citizens of a country have been on average. If measured internationally in a single currency, per capita income will make international comparisons and rankings possible. It may also lead to conclusions regarding a country's level of development insofar as overall income generation in that country can reflect the material well-being of its citizens. A low per capita income usually signals low productivity levels, and reflects the consequences of structural impediments to economic development which may hinder a country in its efforts to overcome poverty[4].

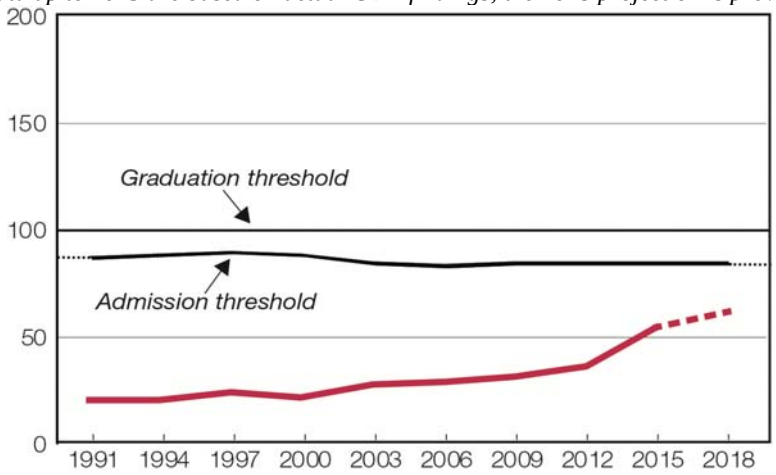
Gross National Income (GNI) per capita is used as the preferred income aggregate for the purposes of identifying LDCs. GNI includes the income which has been generated by national factors –persons or entities– within and outside the domestic economic territory, including the income accruing to nationals who were abroad for less than a year, whose income would not be counted as part of the gross domestic product (GDP). Table 2 shows Nepal's GNI per capita over the 2011-2016 period (World Bank data).

[4] Not part of this discussion, but relevant to several ex-LDCs and potential graduation cases (Angola, Equatorial Guinea, and various small island developing States with an LDC history) is the issue of the fallacy of graduation when prosperity as measured through a per capita income aggregate is considered synonymous with structural economic transformation, and broadly speaking, with a growing capacity to pursue structural progress without LDC treatment.

2.1 Evolution under the graduation threshold since 1991

Graph 1
NEPAL: distance to the graduation threshold
under the per capita income criterion (based on GNI per capita)

NB: *data up to 2015 are based on actual CDP findings; the 2018 projection is provisional*



Source: UNCTAD, based on CDP data up to 2015

At 53% of the graduation threshold in 2015 (vs. 35% in 2012) and an expected 60.5% in 2018, Nepal is on an upward trend, coming nearer to the graduation line relevant to this criterion. Progress took place in the national income (GNI per capita) over the decade preceding 2015 (2004: $290; 2014: $730, albeit with 9% inflation on average), while the slowing down of population growth (from 2.5% per annum in 1998 to 1.2% in 2014) partly explains the rise in per capita income. Performance under this graduation line now begins to reflect the beneficial impact of economic diversification. In the early 1990s, Nepal's exports mainly consisted of live animals and food products, some basic manufactures, and limited tourism revenue. Twenty-five years later, the bulk of total export earnings is generated by a small number of industries: textiles, tourism-dominated services and agro-based products of increasingly organic origin.

The economic performance as observed by the CDP in 2015 does not reflect the severe economic impact of the April and May 2015 earthquakes: GDP growth was 6.0% in 2014, 2.7% in 2015, and 0.6% in 2016; GNI per capita was estimated unchanged in 2015 and 2016 from 2014: US $730.

2.2 Gross Domestic Product and Gross National Income: interpretation

Data on a country’s GDP and GNI in dollar terms can differ from one source to the other on account of differences in calculation methods, mainly in data used for estimating GDP components and the applied exchange rates. With regard to Nepal, GDP and GNI data provided by international sources (World Bank, United Nations Statistics Division) and local sources (Ministry of Finance) differ slightly, though without showing major discrepancies with regard to the 2011-2016 period.

Table 2
Nepal: Gross Domestic Product and Gross National Income, 2011-2016

Relevant variables	2011	2012	2013	2014	2015	2016
GDP at current prices, in billions of Nepalese rupees (NPR) (Govt. of Nepal, Min. of Finance)	1,367	1,527	1,695	1,965	2,120	2,249
Exchange rate of NPR to US $ (average market rate, IMF)	74	85.2	92.99	97.55	102.41	107.38
GDP at current prices, in billions of US $ (based on Govt. of Nepal)	18.47	17.92	18.23	20.14	20.70	20.94
GDP at current prices, in billions of US $ (World Bank)	18.91	18.85	19.27	20.00	21.31	21.14
GDP at current prices, in billions of US $ (UNSD)	18.47	17.93	18.23	19.74	20.66	...
GNI in billions of NPR (Govt. of Nepal, Min. of Finance)	1,375	1,540	1,708	1,997	2,155	2,293
GNI in billions of US $ (based on Govt. of Nepal)	18.58	18.08	18.37	20.47	21.04	21.35
GNI in billions of US $ (World Bank, Atlas method)	16.53	19.02	20.19	20.80	20.98	21.06
GNI per capita in US $ (World Bank, Atlas method)	600	690	720	730	730	730
GNI in billions of US $ (UNSD)	18.57	18.07	18.37	20.07	20.99	...

Sources: World Bank, UNSD, Ministry of Finance of Nepal

The World Bank figure for GDP at current prices tends to be at the upper end of the spectrum (with the exception of 2014). This could be attributed to rounding effects or slight differences in the applied exchange rates, or a combination of both.

For GNI, the year-to-year differences among the threes sources are even smaller, and do not show any deviation pattern. While World Bank estimates were the highest among the three in the years 2012-2014, government figures topped in 2011, 2015 and 2016, with data from the United Nations Statistics Division coming very close to the government figures throughout the period 2011-2016.

Two periods characterize the evolution of Nepal's GNI per capita since 2008[5]. A phase of dynamic growth between 2008 and 2012 was followed by a period of stagnation after 2012. While the combined effects of the 2015 earthquakes and trade blockade at the southern border were major reasons for the lacklustre economic performance in recent years, the sluggish economic activity has also been caused by the inhibiting impact of political factors on the economy, notably as a result of the lack of attractiveness of the business environment for investors.

The gross domestic product grew at the average rate of 4% in real terms between 2008 and 2016, a period of low investment and relatively low growth[6]. This persistent context of relative slowness today raises a question: how could Nepal demonstrate progress toward graduation borders under the two structural criteria (human assets and economic vulnerability)

[5] The year 2008 marks the beginning of a new era in Nepal's history, with the abolition of the monarchy and the proclamation of the Federal Democratic Republic.
[6] See: IMF, Nepal: Staff report for the 2017 Article IV consultation. 13 March 2017

despite its lasting low-income performance? An examination of the external resources flowing into the Nepalese economy brings some answers to this question.

External resource flows

External resources have had a critical impact on the socio-economic development of Nepal. In addition to export revenue, Nepal can resort to two significant external resources of finance: official development assistance (ODA), and remittances from Nepalese working abroad.

During the 2011-2014 period, Nepal received annually about US $800 million in ODA, which increased to $1.2 billion in 2015, following the earthquake. ODA presently accounts for about 25% to 35% of total government expenditure. ODA per capita doubled between 2005 and 2014; after the 2015 earthquakes, it increased 2.6 times (in 2015 as compared with 2005[7]).

While ODA is of critical importance for the functioning of government institutions and programmes, remittances from Nepalese migrant workers are the country's greatest source of external finance, and the financial backbone of a large share of private households. More than 3.8 million permits to work abroad (excluding India), representing 14% of the total Nepalese population, were issued by the Government between 1993/94 and 2014/15[8]. Malaysia, Qatar, Saudi Arabia and the United Arab Emirates absorb about 80% of all Nepalese migrant workers.

Current private transfers from Nepalese migrant workers have largely surpassed export income, ODA flows and foreign direct investment (FDI), and are estimated to be equivalent to more than a third[9] of the gross national income. Among LDCs, Nepal is the country with the greatest ratio of remittances to national income[10]. More than half of all households benefit from remittances, and the latter account for approximately 30% of GDP, a quarter of the total income of households, and more than two thirds of the income of households receiving money from abroad[11].

The labour migration-cum-remittances factor of Nepal's economic performance has a three-fold bearing on the question of Nepal's fitness for graduation.

[7] See: World Bank, World Bank Indicators, and OECD, Development Finance Data, for further information on ODA flows to Nepal.

[8] Government of Nepal, Ministry of Labour and Employment, "Labour migration for employment: a status report for Nepal 2014/15", Kathmandu, 2016, p. 1.

[9] Only remittances that are transferred through formal channels (banks, other financial intermediaries) are statistically recorded. Sizeable amounts, albeit difficult to quantify, cannot be accounted for in official statistics because they are transferred through informal channels outside Nepal's banking system. Accordingly, the actual ratio of remittances to GNI may be higher than the figure appearing in Table 3.

[10] UNCTAD, The Least Developed Countries Report 2014. Growth with Structural Transformation: A Post-2015 Development Agenda. New York and Geneva, p. 15

[11] World Bank, Large-scale migration and remittance in Nepal: Issues, challenges, and opportunities. Report No. 55390-NP, 2011, p. 5

Table 3
Nepal: sources of external finance, 2014

Sources	in US dollars or %
Remittances	$5.9 billion
Exports of goods and services	$2.4 billion
ODA	$0.8 billion
FDI	$0.03 billion
Remittances/GNI	29%
Exports/GNI	12%
ODA/GNI	4%
FDI/GNI	<1%

Source: World Bank, World Bank Indicators, July 2016

First, while remittances have significantly contributed to raising household income and reducing poverty in the country, the flow of remittances depends on the availability of employment opportunities for Nepalese workers in host countries. Expanding host economies have always provided a growing pool of jobs for migrants, thereby inducing high remittance levels. On the other hand, stagnating host economies have had the opposite impact on jobs and remittances. Nepal has no leverage vis-à-vis economic policies and decisions in host countries, though these decisions, with implications for a significant share of Nepal's workforce, may have severe repercussions on the Nepalese economy. Given the geographical concentration of Nepalese migrant workers in oil-producing countries, a decline in oil prices always constitutes a major risk for Nepal's remitted income[12], with direct consequences on domestic consumption, savings and overall economic growth. It can therefore be argued that the country's heavy dependence on large-scale labour migration has added a specific dimension to the economic vulnerability of Nepal.

Secondly, remittances have fuelled an atypical structural transformation in Nepal[13]. The economy has been deviating from its traditional path of structural progress, whereby industrial sectors, including manufacturing, were gradually substituting for agricultural activities. Outflows of rural labour have been triggered by foreign employment opportunities more than they were by domestic industrialization or technological progress in agriculture. Rural emigration has created a shortage of rural labour, which has affected Nepal's agricultural output and productivity. Moreover, the hypothesis of remittances compensating for a declining labour force by making agricultural modernization possible through

[12] The decline in oil prices has led to cuts in construction projects in oil-exporting host countries. In Saudi Arabia, some 67,000 Nepalese migrant workers were reportedly stranded without work (see: asia.nikkei.com), 27 September 2016. Qatar, a key destination for Nepalese migrant workers, is facing political and economic sanctions that will also affect the local labour market. Economic constraints in major employment destinations have brought the numbers of newly recruited Nepalese migrant workers to decrease. Some 1,038 workers left the country legally every day in the first six months of FY2017, i.e. fewer than the 1,152 and 1,487 in the same period in FY2016 and FY2015. ADB, Macroeconomic Update: Nepal, Volume 5, No. 1, March 2017, p.17
[13] World Bank, Remittances at Risk, Nepal Development Update, 2016, p. 16

investment in seeds, technology and extension services is not corroborated by the case of Nepal[14].

At the same time, remittances drive the growth of a largely import-based tertiary sector, notably wholesale and retail trading, and of activities such as construction, real estate development, housing and hospitality. It remains a challenge for the Government to implement policies aimed at attracting remittances for industrial investment, production of competitive goods and services, and employment for Nepalese at home.

Thirdly, calculation of the gross national income includes "net factor income" accruing to national factors of production (individuals and entities) that have been acting outside the domestic territory during a period of less than a year. Remittances to Nepal by Nepalese nationals residing abroad for periods longer than a year or permanently cannot be regarded as factor income and recorded in the GNI of Nepal. These private transfers to households in Nepal constitute substantial income accruing to national households (though not generated by them), yet well above the level of national income indicated by the official GNI figures. Accordingly, the GNI and GNI per capita data relevant to Nepal underestimate the average level of income effectively available to the Nepalese population.

It has been suggested that a gross national *disposable* income (GNDI) should replace the gross national income (GNI) to allow a more realistic assessment of the welfare of nations[15]. Calculation of the GNDI/GNI ratio by Capelli and Vaggi for 13 top receivers of remittances revealed that Nepal's GNDI, in 2013, exceeded its GNI by 32%, and that this ratio was the second highest among LDCs (after Liberia)[16]. Using GNDI, and accordingly GNDI per capita in a country like Nepal would give a better insight into the country's real achievements under the graduation threshold relevant to the income criterion, thereby counterbalancing the perception of an anomalous graduation case[17].

2.3 The question of income distribution

The most recent Gini index score of Nepal (0.328 in 2010) places the country at a middle rank among Asian LDCs.

Income equality or lack thereof is directly reflected in household expenditure. The household consumption pattern of Nepal indicates a stark gap between the poorest 10% and richest 10% Nepalese households. The richest decile consumes 5.9 times more than the poorest decile. The difference is less striking between the quintile groups: the average household consumption is 3.9 times higher in the top 20% than in the bottom 20% of households[18].

[14] See: RajuTuladhar, Chandan Sapkota, Naveen Adhikari, Effects of migration and remittance income on Nepal's agricultural yield. Asian Development Bank (ADB) 2014

[15] See, for an elaborate discussion: Capelli (Clara) and Vaggi (Gianni): Why Gross National Disposable Income should replace Gross National Income, Development and Change 47(2): 223-239, 2016.

[16] Ibid., p. 230

[17] The Ministry of Finance of Nepal, in its latest Economic Survey for the Fiscal Year 2015/16, indicates a GNDI per capita of US $1,030 for FY 2014/15, and of US $1,035 for FY 2015/16 (Govt. of Nepal, Ministry of Finance: Financial survey, Fiscal Year 2015/16, Kathmandu, 2016).

[18] Govt. of Nepal, National Planning Commission Secretariat, Central Bureau of Statistics: Annual Household Survey 2014/15, p. 11

Table 4
Gini coefficients of five Asian LDCs (income distribution)

Country	Gini index score (most recent year)
Cambodia	0.308
Bangladesh	0.32
Nepal	**0.328**
Lao PDR	0.364
Myanmar	0.381
Bhutan	0.388

Source: World Bank, World Development Indicators

At the same time, there is a marked difference between rural and urban areas: the annual average household consumption in urban areas is about 1.8 time higher than in rural areas. The Annual Household Survey 2014/2015 states that the consumption inequality in urban areas is "alarmingly high compared to rural"[19]. The survey found that the average household consumption of the richest 10% urban households was 94 times higher than that of the poorest 10%. In rural areas, the ratio of the richest 10% to the poorest 10% is only 3.

In short, stark rural-urban disparities continue to exist in Nepal. The mountain and hill areas (about 80% of the country's total land area) have a higher percentage of poor people than the low-lying Tarai region. Moreover, the basic infrastructure for drinking water, sanitary installations, electricity and paved roads remains lagging in the mountain and hill areas. After years of decrease, poverty rose again in the mountain areas in 2009.

It should be noted that the available data on income distribution and expenditure in Nepal have been based on pre-disaster censuses. It is likely that the damage caused to thousands of households by the 2015 earthquakes would have widened the income distribution divide.

3. Nepal and the human assets criterion

At the time of the 2015 triennial review of the list of LDCs, Nepal's score under the human assets criterion stood at 104% of the graduation threshold relevant to this criterion (see Graph 2).

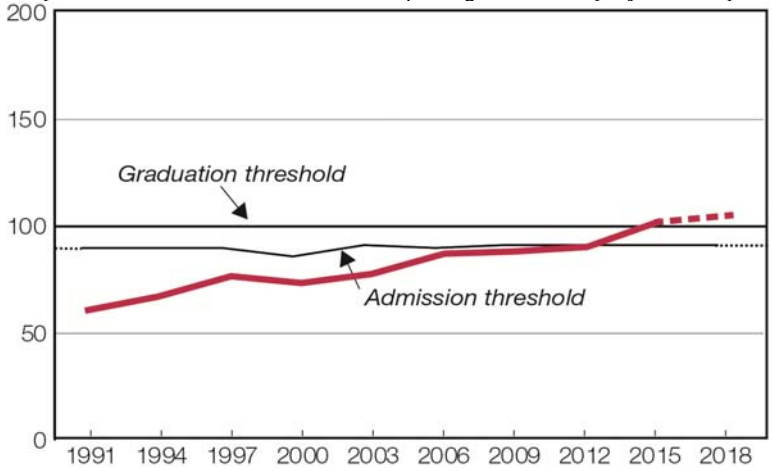
The notable progress to 104% of the graduation threshold in 2015 (from 91% in 2012) was a major turning point as it involved the breaking of a glass ceiling: Nepal had been bordering the graduation line for nearly a decade without meeting the threshold. By rising above the line (albeit marginally) in 2015 while remaining well above the graduation threshold relevant to the third criterion (see Graph 3), Nepal met the rule of pre-eligibility for graduation. The expected rise to 108% of the graduation line in the 2018 review of the list of LDCs confirms the upward trend, and constitutes a step toward full eligibility for graduation.

[19] Govt. of Nepal, National Planning Commission Secretariat, Central Bureau of Statistics: Annual Household Survey 2014/15, p. 7

The country has demonstrated better improvements than many other States in the field of human assets, in the areas of health and education alike. If compared with other Asian LDCs considered on an average basis, Nepal suffers much less from undernourishment and child mortality. The fight against child mortality was rewarded by a significant 45% decrease in the relevant ratio over the 2000 decade. At the same time, gross enrolment in secondary schools increased by 53% during the same period[20].

Graph 2
NEPAL: distance from the graduation threshold
under the human assets criterion
(based on the *Human Assets Index*)

NB: *data up to 2015 are based on actual CDP findings; the 2018 projection is provisional*



Source: UNCTAD, based on CDP data up to 2015

There has been significant improvement in the human assets status of Nepal, from the situation which prevailed a decade earlier, when the country was going through a phase of heightened domestic instability. With political change, improved internal security and a greater focus on development goals by the Government and its development partners, Nepal was able to create favourable conditions for human capital "dividends". This is also evidenced by the fact that Nepal has met or partially met most of the Millennium Development Goals, by halving the share of population living on less than a dollar per day, and increasing life expectancy at birth by almost 30% during the 1990-2015 period (from 55.1 to 71 years[21]).

3.1 Percentage of population undernourished

The estimated percentage of undernourished people used by the CDP in 2015 was 13%.

[20] It remained unclear, after the 2015 review of the list, whether the 2015 natural disasters would significantly affect the secondary school enrolment performance of Nepal to be estimated for the 2018 review, and accordingly, whether a sudden downturn below the graduation threshold would be a possibility (the latter scenario would temporarily bring an end to Nepal's pre-eligibility for graduation).

[21] Government of Nepal, Nepal and the Millennium Development Goals. Final Status Report 2000-2015. Kathmandu 2016

The Annual Household Survey 2014/15 revealed that 15.5% of the sampled households had inadequate food consumption, with 10.9% reporting borderline food consumption, and 4.6% recognizing a poor food consumption status[22]. The Nepal Nutrition and Food Security Portal states that, based on the 2011 census, 38% of the country's population lives with less than the minimum daily calorie intake required for a healthy life[23]. The final report on the accomplishment of the MDGs emphasizes that Nepal reached the target of halving the proportion of the population below the minimum level of dietary energy consumption from 49% in 1990 to 22.8% in 2015[24].

Despite the overall progress, the incidence of undernourishment remains high, with significant disparities between ecological zones, between regions, and between rural and urban areas. Hilly and mountainous areas are worst hit by food insecurity and insufficient calorie intake.

3.2 Child (under five) mortality

The estimated child mortality ratio used by the CDP in 2015 was 39.7 per 1,000 live births.

The 2016 Nepal Demographic and Health Survey documents a pattern of decreasing child (under-5) mortality, with a ratio dropping from 118 deaths per 1,000 live births during the 1991-1996 period to 39 deaths per 1,000 live births in 2012-2016[25].

While the under-5 mortality rate remarkably decreased, there was not a commensurate decrease in the newborn mortality rate (probability of dying within the first 28 days of life). Newborn children now represent a majority of all under-5 deaths, accounting for 61% of them in 2014, compared with 37% in 1990. To address this issue, the Government adopted the "Nepal's Every Newborn Action Plan" with the ambitious objective of bringing to zero the number of preventable deaths among newborn babies, or the number of stillbirths by 2035[26].

Currently, acute respiratory infections and diarrhoea are the main causes of child mortality in Nepal. These conditions often relate to malnutrition, poor sanitation, and poor early childcare practices. Moreover, distance to health facilities is a major problem for parents in mountainous areas. Improved accessibility of health services, particularly in remote areas, is an essential strategy for reducing infant mortality in Nepal[27].

3.3 Maternal mortality *(new component of HAI)*

In 2015, the CDP decided that as of 2018, it would add the maternal mortality ratio (MMR) to the four components of the composite Human Assets Index (HAI), which is updated before every triennial review of the list. Maternal mortality is a leading factor of the incidence of death among women between 15 and 49 years, i.e. the age of highest

[22] Government of Nepal, Annual Household Survey 2014/15, Kathmandu 2016, p. 10
[23] http://www.nnfsp.gov.np/CurrentSituation.aspx, July 2017
[24] Government of Nepal, Nepal and the Millennium Development Goals. Final Status Report 2000-2015. Kathmandu 2016, p. 18
[25] Nepal: Demographic and Health Survey, Kathmandu 2017, p. 21
[26] Government of Nepal, Nepal's Every Newborn Action Plan, Kathmandu 2016
[27] Dev R, Williams MF, Fitzpatrick AL, Connell FA. Topographical Differences of Infant Mortality in Nepal. Kathmandu Univ Med J 2016; 54(2): 96-102

productivity. Maternal mortality therefore has a particularly negative social and economic impact. The MMR is also a proxy for public health impediments and gender inequality. In short, inclusion of the MMR in the Human Assets Index is an attempt to enrich the HAI as a composite indicator of structural progress or lack thereof[28].

The MMR is conventionally calculated as the number of maternal deaths per 100,000 live births over a given period of time, usually a year[29]. Nepal's MMR declined from 901 deaths per 100,000 live births in 1990 to 258 in 2015. Yet Nepal's ratio remains one of the highest among Asian LDCs[30], and a far cry from approaching Sustainable Development Goal 3 (Ensure healthy lives and promote well-being for all at all ages), which aims to reduce the global maternal mortality ratio to less than 70 deaths per 100,000 live births by 2030.

3.4 Secondary school enrolment

The estimated gross secondary school enrolment ratio which was used by the CDP in 2015 was 66.6% .

There was considerable progress in the gross secondary school enrolment ratio of Nepal over the past decade, from 45.6% in 2007 to 69.6% in 2016.

The gender gap in secondary school enrolment significantly diminished over the years, to the point of approaching gender parity[31]. However, the 2015 earthquakes devastated the schooling infrastructure and disrupted Nepal's educational services. In 11 of the most impacted districts, 34,500 of the 55,000 existing classrooms were found unsafe for use. This has affected the quality of education services for over a million children, and increased the number of children out of school. The net secondary school enrolment ratio, which incorporates the number of children enrolled in relevant classes who are of relevant age, fell for boys and girls in 2016, back to 2011 levels.

As families struggled to make a living in the wake of the 2015 natural disasters, there was a risk of girls being pulled out of school to help in productive activities or to be forced into early marriage[32].

3.5 Adult literacy

The adult literacy rate which was used by the CDP in 2015 was 57.4%.

The Annual Household Survey 2012/13 indicated an adult literacy rate of 62.2%, with a significant gender difference (75.2% for males vs. 51.9% for females). Literacy has also been related to the area of residence, with a ratio of 81.6% in urban areas and a ratio of only 57.8% in rural areas. The urban vs. rural gap in literacy is also observed to be much wider in female literacy[33].

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[28] United Nations, Handbook on the Least Developed Country Category: Inclusion, Graduation and Special Support Measures. Second Edition, New York 2015, p. 51
[29] "Maternal death" is here understood as being related to the pregnancy, as opposed to accidental death.
[30] No data available for Afghanistan.
[31] http://uis.unesco.org/country/np July 2017
[32] UNESCO, Global Education Monitoring Report 2016, Education for people and planet. p. 33
[33] Government of Nepal, Annual Household Survey 2012/13, Kathmandu 2014, p. 24

To eradicate illiteracy, the Government has undertaken literacy campaigns and educational programs through Non-Formal Education Centres. Results have been mixed, due to a shortage of resources and logistical problems, and because of the difficulties associated with the multiplicity of ethnic and cultural groups in the country (125 groups, 123 languages spoken as mother tongues). Moreover, the 2015 earthquakes brought non-formal education programmes to a standstill, particularly in the most remote areas. The interruption of literacy classes and the lack of possibility to practice the newly acquired read-and-write skills on a daily basis have heightened the risk of relapses into illiteracy for a significant portion of the adult population.

4. Nepal and the economic vulnerability criterion

At 122% of the graduation threshold under this criterion in 2015[34] and after years of performance above the graduation line, Nepal's structural economic progress is visible through lesser economic vulnerability, albeit not yet through improved per capita income. Bearing in mind that all data entering Nepal's score under the Economic Vulnerability Index (EVI) up to the 2015 review were pre-disaster estimates, one observes that nearly all indicators entering the composite EVI explained a performance even higher in 2015 than in 2012:

(i) under the new ratio of low-lying areas (a "coastal" indicator), Nepal, a land-locked country, is statistically a zero-vulnerability State;

(ii) the disaster victims ratio revealed a country 72% less affected by natural disasters than other Asian LDCs considered as a whole (a pre-earthquake estimate now obsolete);

(iii) Nepal's merchandise export structure is 67% less concentrated than that of economies in the same comparative group;

(iv) finally, economic instability is significantly lower in Nepal than in other Asian LDCs: by 59% for agricultural production; by 41% for goods and services exports.

The expected downturn to 111% of the graduation threshold in the 2018 review of the list of LDCs (the dotted segment in Graph 3) reflects the 2015 earthquakes, yet with an EVI score remaining above the graduation line. The hypothesis of a relapse under the graduation threshold (a scenario which would have brought an end to the pre-eligibility for graduation) is brushed aside.

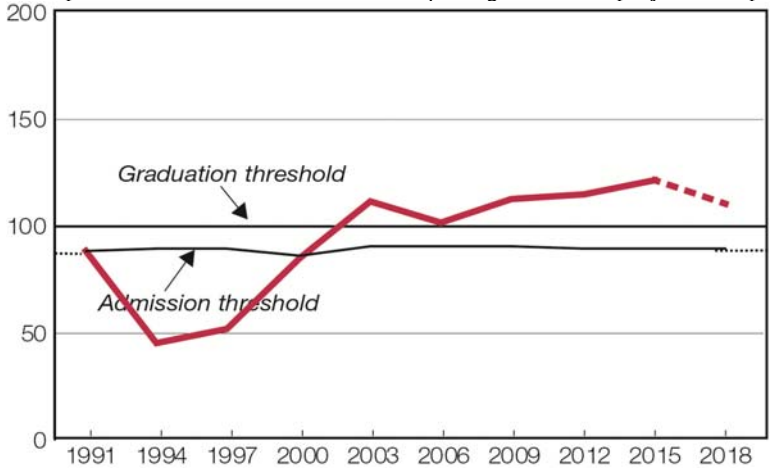
Nepal has continuously met the graduation threshold relevant to this criterion since the 2003 triennial review. The Economic Vulnerability Index (EVI) was used for the first time in the 2000 review of the list of LDCs. Prior to it, an Economic Diversification Index (EDI) was the tool with which the Committee for Development Planning would measure structural economic progress. The EDI differed significantly from the EVI (which itself

[34] It is noteworthy that Nepal's upward movement above this graduation threshold illustrates a downward evolution of the country's EVI score (27.8 in 2012, 26.2 in 2015, in both cases under a graduation threshold of 32). The graphic inversion from downward to upward serves to harmonize the interpretation of progress under this criterion with the interpretation of progress under the other two criteria: be it above or below the graduation line, an upward trend means that the country has recorded progress with regard to the question of graduation, while a downward trend (e.g. in 2006) is synonymous with regression in this respect.

evolved over the decade and a half), and this methodological change has compelled readers to interpret with caution the contrast between Nepal's EDI performance before 2000 and its EVI performance since 2000.

Graph 3
NEPAL: distance from the graduation threshold
under the economic vulnerability criterion
(based on the *Economic Vulnerability Index*)

NB: *data up to 2015 are based on actual CDP findings; the 2018 projection is provisional*



Source: UNCTAD, based on CDP data up to 2015

Nepal's progress above the graduation border relevant to this criterion is in theory an indication of diminishing vulnerabilities over time. This should be interpreted *cum grano salis* and not as room for complacency. Nepal remains economically vulnerable, notably as a result of its land-lockedness.

Land-locked countries have no direct access to sea ports. Their ability to competitively trade in goods largely depends on political goodwill domestically and regionally, particularly on efforts by transit neighbours to provide a facilitating technical and administrative infrastructure in order to contain the transaction costs incurred by land-locked operators. Many land-locked developing countries are marginalized in the global trading system and occupy low-end positions in international value chains.

The penalizing impact of land-lockedness on developing countries is illustrated by the fact that 10 of the 20 lowest-ranking countries under the Human Development Index of UNDP are land-locked States[35]. Nepal's situation as a land-locked economy is further complicated by the fact that the country has only two transit neighbours (China and India), and that it has so far been dependent, for third-country trade links, on the sea ports of only one of them, namely, India. The trade disruptions at the southern border in 2015, which nearly brought Nepal's international trade to a halt, were reminders of the fragility of transit arrangements. It was ironical that 2015, the year of earthqualkes and border disputes in Nepal, was also the year in which Nepal's economic vulnerability was statistically diminished by the

[35] http://hdr.undp.org/en/composite/HDI

addition of a coast-related variable to the components of the EVI, a variable of relevance to coastal countries only, therefore necessarily involving a zero rating for any land-locked State.

4.1 Economic remoteness

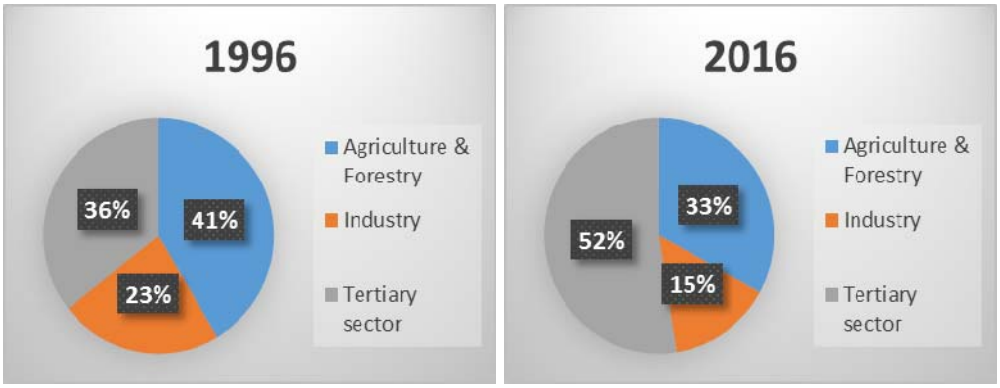
The country's score in the remoteness sub-index within the EVI gives Nepal a middle ranking among LDCs, notably because Nepal's land border with its main trading partner is a closeness factor rather than a remoteness factor. Yet third-country markets are difficult to reach for Nepalese traders, given the immense geographical distances and considerable logistical challenges that entail transport and transit costs. The bulk of Nepal's third-country merchandise trade is shipped via the ports of Calcutta and Haldia, which are about 1,000 km away from Kathmandu. As both Calcutta and Haldia are feeder ports, cargo is usually taken to other ports, such as Singapore, before being loaded onto international shipping lines. Thus, a Nepalese carpet may travel about 38 days from Kathmandu to Europe[36].

In an effort to further diversify its transit routes, Nepal signed a transit and transportation framework agreement with China in March 2016. This agreement allows the operation of a new transit route via the sea port of Tianjin. However, this multimodal transport route to Tianjin, through a challenging terrain, is about 3,000 km long, i.e. three times longer than the land route to Calcutta.

4.2 Share of primary sectors in GDP

The contribution of economic sectors to Nepal's gross domestic product (GDP) changed markedly during the past two decades, thereby reflecting structural change in the national economy.

Graph 4
Composition of GDP by economic sectors, 1996 and 2016



The contribution of agriculture and forestry to GDP has declined over time, from 41 % in 1996 to 33% in 2016. Yet agriculture maintained its dominant economic and social

[36] T.R. Lakshmanan, Uma Subramanian, William P. Anderson, Frannie A. Leautier, 2001. Integration of transport and trade facilitation: selected regional case studies. Directions in development. Washington, DC: The World Bank, p. 99

role in the country. It still directly and indirectly supports the livelihood of more than two thirds of the population, and accounts for a large share of Nepal's export goods.

On the other hand, the contribution of non-agricultural sectors to GDP has been steadily on the rise. In particular, the heterogeneous tertiary sector, primarily domestic services such as wholesale and retail trade, hotel and restaurant operations, transport and communication, real estate services as well as public administration and health and education services, has shown significant growth. Its share increased from 36 % in 1996 to more than half of GDP in 2016[37].

Industry, including manufacturing, has not been an engine of growth. Its share in GDP gradually declined, from 23 % in 1996 to 15 % in 2016. Manufacturing accounts for a mere 6.5% of GDP, thereby standing out as the smallest manufacturing sector among Asian LDCs (Bangladesh: 17.6%; Bhutan: 9.3%; Cambodia: 16%; Lao PDR: 8.4%).

The manufacturing sector underwent significant changes in recent years. The share of the food and beverages sub-sector increased by 50% between 1996 and 2011, and came to account for more than a third of manufacturing value added. Non-metallic mineral production showed a similar performance, with a doubling of its share of GDP from 7% to 14%. These developments took place at the expense of textiles and apparel activities. Textile manufacturing, the leading sector of the economy two decades ago (26% of GDP in 1996), had dropped to 3.8% in 2011, while the apparel industry had almost disappeared (from 6.3% of GDP in 1996 to 0.5% in 2011[38]).

4.3 Merchandise export concentration

Export concentration, the opposite from a diversified export structure, is regarded by the CDP as a factor of exposure to potential risks beyond domestic control, and thereore a factor of economic vulnerability.

Nepal's merchandise export structure, in comparison with most other LDCs, can be considered diversified, not concentrated. However, export concentration is preferred to export diversification for EVI calculation purposes. Nepal's merchandise export concentration is significantly lower than the average for all other LDCs (by 71%). Yet Nepal has a relatively narrow export base, which has shrunk in recent years (from 100 exported products in 2005 to 94 in 2015). Fifteen product groups account for about 70% of total exports. Key exports are mainly low-tech goods such as carpets and other fibre floor coverings, apparels and textiles, agricultural and food products, as well as iron and steel products. Though two thirds of Nepal's total exports of goods enter the Indian market under a free-trade agreement, the loss of preferential market access to third countries upon graduation from LDC status is a concern for local exporters who see preferential margins as lastingly critical for their competitiveness on overseas markets[39]. In short, Nepal's relatively diversified export structure has been a non-

[37] For a more comprehensive analysis of the services sector see: UNCTAD: Nepal National Services Policy Review, New York and Geneva 2011

[38] Govt. of Nepal: Development of manufacturing industries in Nepal. Current state and future challenges. Kathmandu 2014, pp.14-15

[39] See for more details: Pramila Crivelli: Nepal's pre-eligibility for graduation from Least Developed Country (LDC) status. The interests of the trade sector in anticipation of a hypothetical loss of LDC treatment (a study commissioned by UNCTAD). Goethe University Frankfurt, January 2016

vulnerability factor statistically, but the challenge of enventually losing LDC treatment and facing losses of competitiveness considerably dampens the perception of non-vulnerability.

4.4 Victims of natural disasters

Nepal's geographical location exposes it to extreme precipitation, seismic activities and landslides. Loss of lives and damage to property and infrastructural assets as a result of natural disasters are a regular phenomenon in the Nepalese economic and social landscape. The number of disastrous events appears to have been on the rise, due to natural and man-made causes.

Like exposure to intense cyclonic frequency in insular regions, exposure to plate tectonics is an acute dimension of Nepal's vulnerability. The country straddles the fault line between two major tectonic plates, the Indian plate and the Eurasian plate, which push each other and displace the crust of the earth. This process periodically causes earthquakes when strain built up along the fault must give way. Historically, there has been dangerous seismic activity every 70 to 100 years in Nepal.

According to seismic expertise, only a small section of the fault under Nepal ruptured in the April and May 2015 earthquakes and aftershocks. This implies that a very large amount of energy remains stored in the ground, thereby making the risk of another large earthquake relatively high. While it is not possible to predict when this will occur, experts anticipate the next earthquake to be much larger and with an even more devastating impact on the country's population, economy and development prospects[40].

Another serious natural menace is the flooding phenomenon. Nepal's water body consists of more than 6,000 rivers and rivulets with a total length of 45,000 km. They are critical for the irrigation of agriculture, and they also serve as a source of drinking water. However, in every monsoon season, rivers often overflow and cause severe damage to life and property. In June-August 2017, more than half of the 75 districts of Nepal were impacted by floods and landslides triggered by heavy monsoon rains. Over 1.7 million people were affected (with some 160 persons losing their lives), and 43,000 houses were destoyed[41].

In addition to monsoon floods, the country also faces two types of flooding threats that have become more recurrent with climate change: glacial lake outburst floods (GLOF); and the bishyari, which occurs when a landslide that blocked a river is breached by the reservoir of water which formed upstream of the blockage. Both GLOF and bishyari are difficult to predict and have been threats to assets, infrastructure and life[42].

Various environmental risk indices place Nepal among the environmentally most vulnerable countries in the world. For examples, the University of Notre Dame Global Adaptation Initiative (ND-GAIN) index, which measures a country's vulnerability to climate change and other global challenges in combination with its ability to improve resilience,

[40] http://geographical.co.uk/nature/tectonics/item/1513-the-nepal-earthquake-a-warning-for-the-future
[41] https://reliefweb.int/disaster/fl-2017-000107-npl
[42] Ajaya Dixit, Climate Change in Nepal: Impacts and Adaptive Strategies. Institution for Social and Environmental Transition-Nepal, http://www.wri.org/our-work/project/world-resources-report/climate-change-nepal-impacts-and-adaptive-strategies

ranks Nepal 120th out of 181 countries. Nepal's capacity to adapt to climate change impact is rated even lower: 136th among 192 countries[43].

Nepal is facing several simultaneous challenges related to climate change: shrinking glaciers, leading to increasingly frequent glacial lake overflow and flash floods; landslides; more erratic precipitation; and alterations in the pattern of temperatures, winds, fog and hailstorms. The Government estimates that 1.9 million people in Nepal are highly vulnerable to risks associated with climate change, and that an additional 10 million will increasingly be threatened by the same risks. Overall, about 37% of the country's population is considered exposed to climate-related factors, particularly through economic and related activities such as agriculture, forestry, water and energy, health, infrastructure and tourism[44].

An additional major concern, in this context of environmental vulnerability related to climate change, is the rapid growth of the population, a recognized factor of ecological degradation which has become manifest in many parts of the country, notably through the degradation or loss of forests, soil erosion, air pollution, water pollution, and the difficulty in managing solid waste.

Table 5 provides details of the impact of natural disasters on the number of victims in Nepal. These data encompass earthquakes, floods and landslides, which have been the events entailing the heaviest losses of lives and assets, and having the most severe consequences for economic, cultural, environmental and social systems. More than 9 million people, or almost a third of Nepal's population, have been affected by natural disasters since the year 2000. Many of them lost not only their home or family members, but often also their livelihood.

4.5 Instability of agricultural production

Agriculture accounts for a third of Nepal's gross domestic product (GDP), which is twice as much as the contribution of the industrial sector. It continues to be the first source of employment and income for the population. Average real growth of agricultural activities was near to 3% over the past 25 years, but with high volatility, including years of contracting production (see Graph 5).

The instability of agricultural production, in Nepal, has mainly resulted from a mix of factors ranging from climate-related shocks (monsoon rains) to structural issues such as the technological limitations of farmers, particularly the limited availability of high-yield seeds and agro-chemicals, and the relative scarcity of irrigation infrastructure. Yet, due to the heavy economic and social weight of agriculture in Nepal, the stark year-to-year swings in the agricultural output generate ripple effects on the whole economy.

Paddy rice, maize and wheat are the major cereal crops in Nepal. They account for more than 95% of total cereal production. Millet is also cultivated as staple crop, but on a smaller scale and primarily in hilly and mountainous areas.

[43] http://index.gain.org/ranking

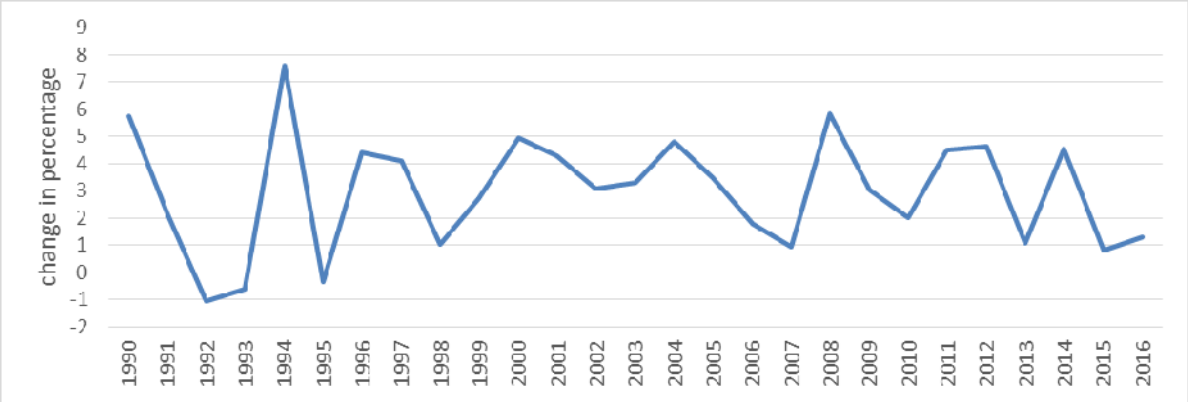
[44] Government of Nepal, Ministry of Science, Technology and Environment: National Adaptation Program of Action (NAPA) to Climate Change. Kathmandu 2010, p. 11

Table 5
Number of victims of natural disasters in Nepal, 2000 to 2016

Year	Number of events	Deaths	Injured people	People affected otherwise	Homeless people	Total number of victims	Estimated damage (in '000 of US $)
2000	3	463	70	50,592		50,662	6,300
2001	3	170		21,261		21,261	
2002	3	564	305	265,760		266,065	
2003	2	287	284	43,395	15,575	59,254	
2004	1	185	15	800,000		800,015	
2005	3	69		31,600		31,600	
2006	4	157		200,000	80,000	280,000	
2007	1	214	48	640,658		640,706	2,400
2008	2	115	3	250,000		250,003	29
2009	6	459	62	619,598		619,660	60,000
2010	4	223		13,372		13,372	
2011	7	182	121	194,686		194,807	123
2012	2	83	5			5	1,000
2013	3	244	35	12,474	4,314	16,823	
2014	6	573	324	187,621		187,945	15,000
2015	4	9,034	20,396	5,621,790		5,642,186	5,174,000
2016	3	174	74	20,500		20,574	15,000

Source: EM-DAT: The Emergency Events Database - Université Catholique de Louvain (UCL) - CRED, D. Guha-Sapir - www.emdat.be, Brussels, Belgium

Graph 5
Annual growth of agricultural value added in Nepal, 1990-2016



Source: World Bank Development Indicators, https://data.worldbank.org/indicator/NV.AGR.TOTL.KD.ZG

Table 6 provides a synopsis of cultivated areas, production and yield of cereal crops for crop years 2000/2001 and 2015/2016.

Table 6
Major cereal crops: area, production and yield, crop years 2000/2001 and 2015/2016

Crops	Cultivated area ('000 ha)		Production ('000 metric tons)		Yield (kg/ha)	
	2000/2001	2015/2016	2000/2001	2015/2016	2000/2001	2015/2016
Paddy	1,560.04	1,362.91	4,216.47	4,299.08	2,703	3,154
Maize	824.53	891.58	1,484.11	2,231.52	1,800	2,503
Wheat	641.03	745.82	1,157.87	1,736.85	1,806	2,329
Millet	259.89	266.80	282.85	302.40	1,088	1,133

Source: Govt. of Nepal, Ministry of Agricultural Development: Statistical information on Nepalese agriculture 2015/2016, Kathmandu, 2017

While crop areas (with the exception of paddy) and production expanded over time, the yields of the three major cereal crops significantly increased, notably that of maize by almost 40%. Yet despite these improvements, agricultural productivity in Nepal remained among the lowest in the region.

Nepal's cereal crop production, and the agricultural sector in general, depends heavily on monsoon rains. As a result, agricultural production has not been free of setbacks, slumps and sharp fluctuations. The production of crops that depend on the regular provision of surface water, such as paddy rice and maize, has been highly vulnerable to irregularities in the monsoon rainfall pattern. Inadequacies in soil moisture due to delayed or poor rains and repeated shortages of fuel for irrigation and land preparation have curbed the expansion of food and cash crop production. In addition, population growth has caused high pressure on arable land. As a result, the average size of land holdings has decreased (from 1.1 hectare to 0.7 hectare). This has dampened productivity, food security and the trade balance. While Nepal imported agricultural products worth US $1.3 billion in fiscal year 2013/2014, its agricultural exports amounted to only US $268.91 million[45].

4.6 Instability of exports of goods and services

With the exception of the aftermath of the 2015 earthquakes, when merchandise exports dropped by 25%, there has not been much export instability in Nepal since the year 2000. Nepal's merchandise exports have been characterized more by stagnation than by instability. Since 2000, exports of goods have evolved within a narrow range, between US $804 million and $889 million (see Graph 7).

Both the preferential access to, and the sheer size of, the Indian market which absorbs two thirds of Nepal's exports, acted as stabilizing factors for Nepal's export sector.

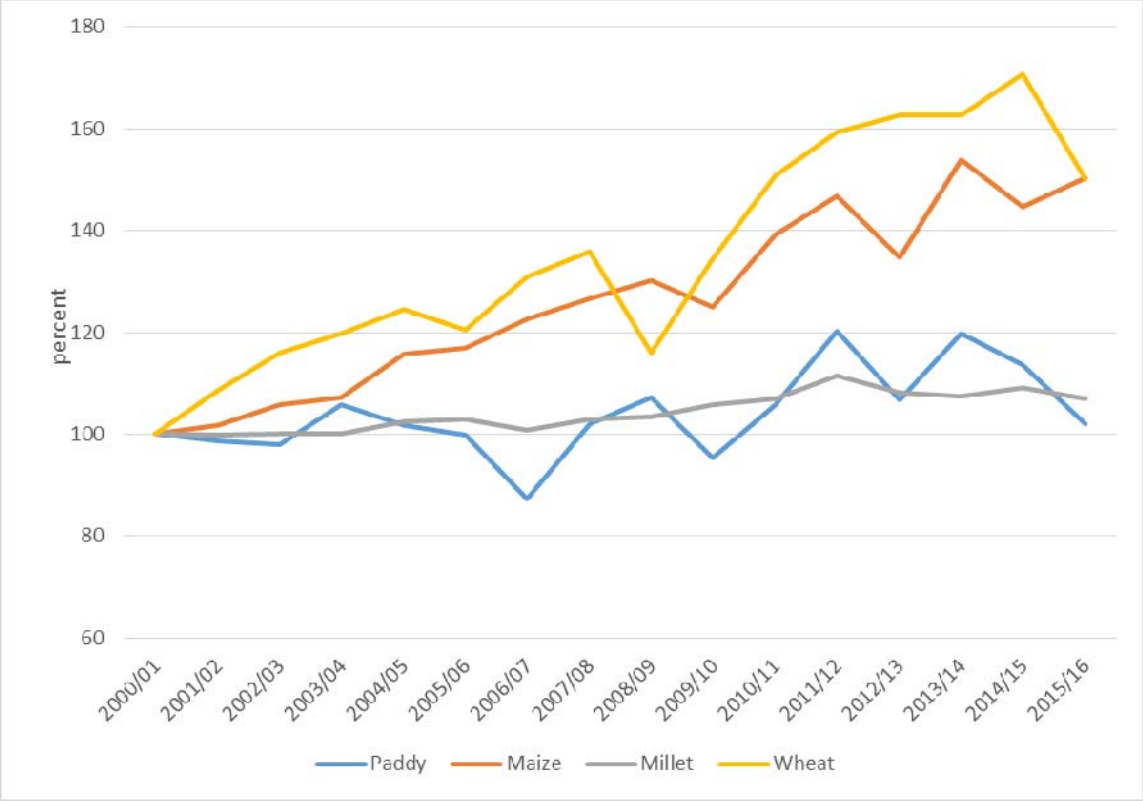
However, strong concentration on one particular export market can also entail specific vulnerabilities, notably as regards regulatory and procedural requirements. Thus, the introduction of the Goods and Services Tax (GST) in India as of 1st July 2017 slowed down trade between India and Nepal, due to uncertainties in the application of the new regulations.

[45] Govt. of Nepal, Office of the Investment Board: Sector overview agriculture, http://ibn.gov.np/agriculture

Moreover, a tax-related rise in the logistic service charge for the use of port facilities adds to the transaction costs which Nepalese merchants incur.

Graph 6

Evolution of the production of major cereal crops, 2000/2001 to 2015/2016 (100 base = 2000)



Source: Govt. of Nepal, Ministry of Agricultural Development: Statistical information on Nepalese agriculture, 2015/2016, Kathmandu, 2017

Irrespective of the trade-curbing effect of this regulatory change, Nepalese exporters have failed to maintain their market shares in India. Nepal captured more than 50% of total Indian imports from South Asia in 2001. This share had declined to 20% by 2013. This may partly be attributed to the increased informal trade between the two countries to avoid procedural and other non-tariff barriers. However, other major reasons include supply side constraints, low productivity and diminishing competitiveness due to the lack of product innovation and product upgrading in Nepal's export portfolio[46].

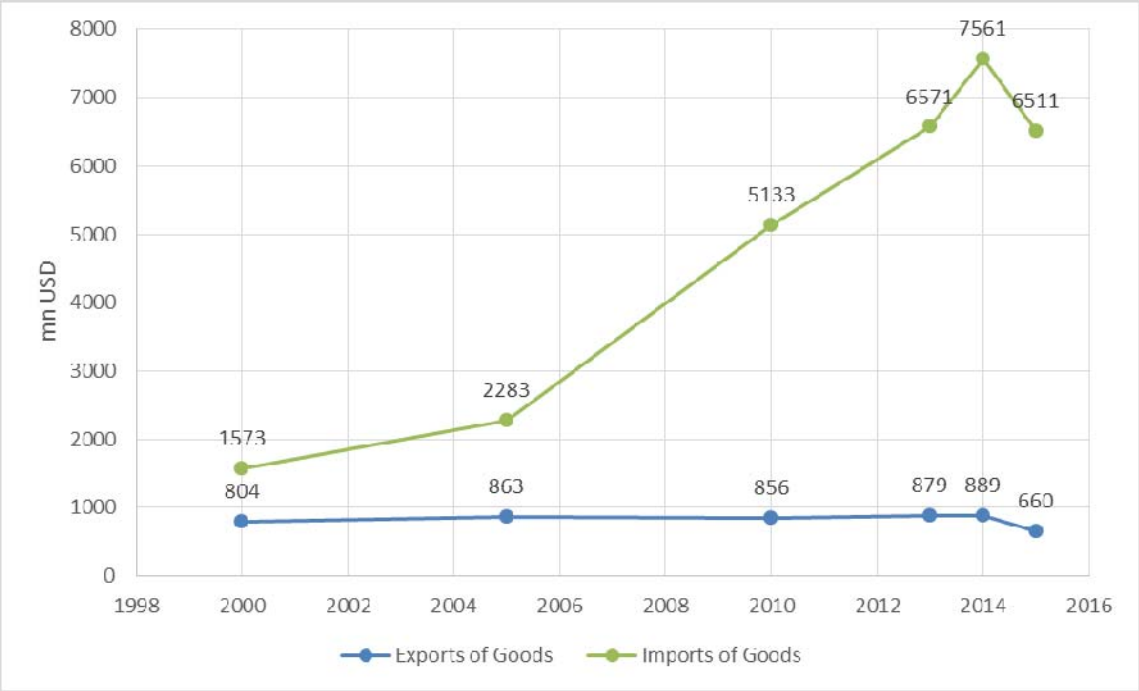
The exchange rate mechanism between Nepal and India has also influenced Nepal's exports significantly. Nepal has maintained a currency peg of 1.6 Nepalese rupee to one Indian rupee since 1994. But the economies of the two countries have developed very differently, and this has resulted in a creeping trend of revaluation of the Nepalese rupee.

[46] Bishnu P. Sharma et al., An Assessment of Export Barriers of Nepalese Products to India, Tribhuvan University, June 2014

This has eroded the competitiveness of several Nepalese exports and favoured imports into Nepal.

Graph 7

Nepal's external trade: merchandise exports and imports in millions of US dollars, 2000-2015



Source: UNCTAD, Handbook of Statistics 2014 and later years, New York and Geneva

The slow merchandise export growth has been a concern in the context of the slowing of remittance inflows. The growing trade gap is not only a result of massive imports, it is also a reminder of the difficulty, for the export-oriented manufacturing sector, of remaining competitive when production costs are particularly high and the economy's capacity to maintain a steady supply quantitatively and qualitatively is limited. It is also difficult for industries to innovate in a poor business environment with an inadequate infrastructure and limited access to international markets while remittance-funded imports remain vibrant[47]. The current reality of Nepal's manufacturing economy resembles more a shrinking industrial base than a case of structural economic transformation. Nepal has been falling behind its regional neighbours (LDCs and non-LDCs) in terms of productive capacity development. The low productivity and high unit costs have meant losses in market shares on regional export markets, notably India.

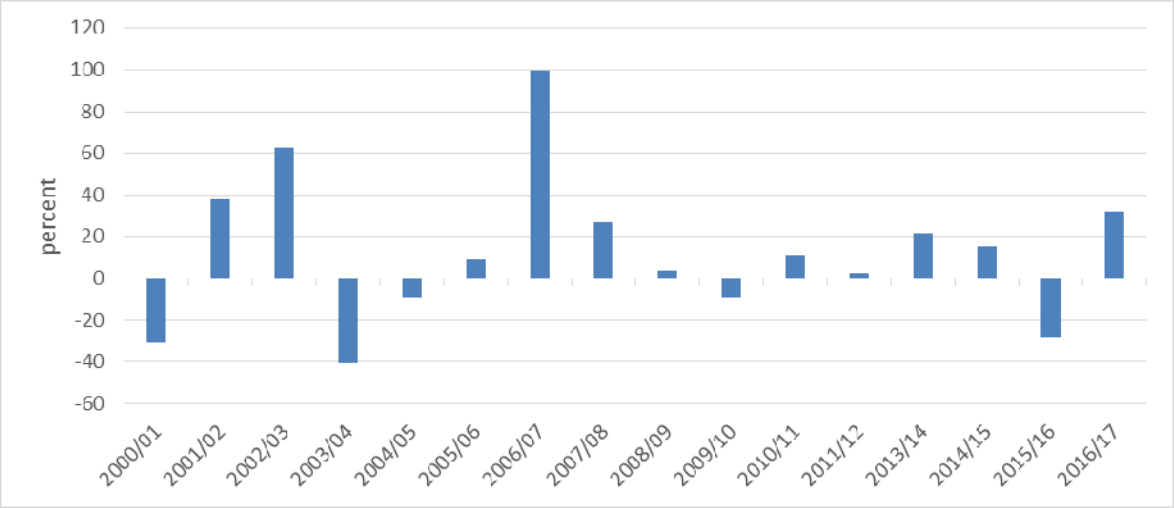
However, the Government is pinning great hopes in hydropower projects that are due to become operational during the next decade, to produce sufficient electricity for revitalizing domestic industries, for addressing environmental issues related to the use of fossil fuels, and for export.

[47] See for a more detailed discussion: Lal Shanker Ghimire, Nepal's Widening Trade Deficit (Some Issues, Challenges and Recommendations). Govt. of Nepal, National Planning Commission Secretariat, EMD Discussion Papers No: 3 (2016)

Though imports dropped in 2015 as a consequence of the disastrous events, there has not been any positive change in the structure of Nepal's trade in goods. Preliminary figures for 2016 and 2017 indicate a further widening of the trade deficit.

Nepal's exports of services, in nominal value, more than doubled between 2010 and 2015 (from US $671 million to $1,430 million). Yet the balance of services ($230 million in 2015) has been too insignificant to offset the massive merchandise trade deficit ($5.7 billion in 2015). International tourism receipts have been Nepal's largest source of export revenue in the sphere of trade in services. It never accounted for less than a third of total service exports (51% in 2010, 38% in 2012, 34% in 2015). However, foreign exchange earnings from international tourism have been as volatile and unstable as the streams of tourist arrivals, which have fluctuated, over the years, in reaction to natural disasters, political instability, and health pandemics (see Graph 8).

Graph 8
Annual changes in gross foreign exchange earnings from tourism
in fiscal years 2000/2001 to 2016/2017



Source: Government of Nepal, Ministry of Culture, Tourism & Civil Aviation, Nepal Tourism Statistics 2016, Kathmandu, 2016, p. 83

5. Using the LDC criteria indicators to measure Nepal's structural progress: some lessons

Analyzing the performance of a country under the LDC criteria may cast light on the relative strength of these criteria, and on their limitations in respect of the goal of measuring the structural, transformational progress demonstrated by that country. Some lessons can be drawn from a reading of the performance of Nepal under each one of the 14 indicators which the three LDC criteria incorporate. These lessons point to the importance of interpreting Nepal's performance with particular care.

Table 7 summarizes the rationale for using each one of the 14 indicators as a tool for measuring structural progress and assessing the pertinence of the idea of graduation accordingly. The table also highlights the extent to which each indicator captures the

structural economic or social progress of Nepal. A broad assessment of the explanatory value of each one of the 14 measurements is indicated in parentheses.

This overview of the interpretative value of the variables reveals the following:

(i) 8 of the 14 indicators provide an adequate measurement of Nepal's structural progress; 5 of these 8 indicators make up the entire composition of the Human Assets Index (HAI), thereby making the HAI stand out as the most satisfactory of the current tools at the disposal of the United Nations for measuring structural change in Nepal;

(ii) the gross national income (GNI) per capita, an unlikely enlightener by definition when structural economic transformation is the question at stake, is only partially adequate in helping to capture structural progress in Nepal;

(iii) the Economic Vulnerability Index (EVI) appears to be the most debatable of the three aggregates with regard to its ability to explain Nepal's structural handicaps and structural strengths: 4 of the 8 components of Nepal's EVI score inadequately measure the country's economic vulnerability, essentially by underplaying the structural disadvantages of land-lockedness and the exposure to violent shocks. The measured impact of the 2015 earthquakes in the forthcoming 2018 update of the EVI will mitigate this general impression without invalidating it.

In short, Nepal's overall economic wealth appears to be only partially well estimated through the per capita income criterion, given, inter alia (i) the relative under-reporting, within the GNI, of remittances from Nepalese abroad, and (ii) the lack of clarity on income distribution and its impact on structural change. Meanwhile, the progress in the social status of the country is deemed appropriately reflected under the human assets criterion. The intrinsic economic vulnerability of Nepal is significantly underplayed because of the inadequacy to the case of Nepal of half of the components of the Economic Vulnerability Index. Nepal is economically much more vulnerable than it appears to be on the methodological and statistical grounds the United Nations presently leans on.

Table 7

LDC criteria indicators and the goal of measuring Nepal's structural economic progress

14 indicators of performance under 3 LDC criteria	Why is the indicator considered suitanble, in theory, for capturing progress toward graduation?	Does the indicator effectively measure Nepal's structural economic progress?
GNI per capita	A rising per capita income will indicate higher living standards. It will also feed the impression of a growing capacity of the country to pursue development efforts with less external support.	Nepal's GNI per capita casts no light on income distribution or structural economic transformation. Moreover, it is somewhat underestimated, due to under-recorded remittances from Nepalese abroad. *(Partially adequate measurement)*
Percentage of under-nourished people (component of the HAI)	An improving nutrition status will be seen as the pathway to better health, the avenue for durable progress in the human assets of the country.	Though diminishing, the relatively high incidence of undernourishment in Nepal is a suitable measurement of what remains an obstacle to structural progress in human assets. *(Adequate measurement)*
Child mortality rate (component of the HAI)	Success in the fight against child mortality will be interpreted as the result of meaningful public health achievements, and will indicate structural progress in the human assets of the country.	The 67% decrease in Nepal's child mortality over the past two decades implies significant advances in public health over time. It prefigures durable improvement in the country's human assets. *(Adequate measurement)*
Maternal mortality ratio (component of the HAI from 2018)	A decreasing maternal mortality ratio will indicate meaningful progress in public health and human capital, thereby echoing the progress in infant mortality and child mortality.	Though correlated with the lowering of child mortality and therefore somewhat redundant, the diminishing maternal mortality ratio reinforces the perception of structural improvement in Nepal's human assets. *(Adequate measurement)*
Secondary school enrolment ratio (component of the HAI)	A rising secondary school enrolment performance will be interpreted as paving the way for a durably improved human capital.	The 50% increase in secondary school enrolment in Nepal over the past decade unambiguously indicates a national capacity to improve the human capital of the country, and a pathway to structural economic progress. *(Adequate measurement)*
Adult literacy rate (component of the HAI from 2018)	A rising adult literacy performance --a dividend of greater school enrolment over time, and a necessary condition for structural economic transformation-- will be interpreted as significant progress in human assets.	Though unevenly distributed, the 22% increase in adult literacy over the past decade is the sign of a soundly improving human capital. It prefigures a capacity to achieve further structural economic transformation. *(Adequate measurement)*
Population size (component of the EVI)	CDP takes the view that, the smaller the population, the more difficult it is for the country to develop productive capacities and increase resilience to shocks: the smaller the nation, the more economically vulnerable the country	By postulating that smallness means vulnerability, one portrays Nepal, the 9th largest LDC with a population of 28 million, as a less vulnerable economy. This assumption is defeated by the disaster history of the country. An indicator designed to do justice to small LDCs, underplaying the structural disadvantages of larger, yet vulnerable economies. *(Inadequate measurement)*

Geographical distance to main markets (component of the EVI)	CDP takes the view that, the more economically remote the country, the more difficult it is for the economy to become or remain competitive and achieve structural transformation: the more remote the country, the more structurally disadvantaged its economy.	With 9% less remoteness than other LDCs taken on average, and despite its land-lockedness, Nepal is misleadingly portrayed as a geographically less isolated, therefore less disadvantaged economy. *(Inadequate measurement)*
Proportion of people in low-lying coastal areas (component of the EVI)	The larger the proportion of people living in low-lying areas, the more exposed the nation will be to sea-related shocks.	As a land-locked country, Nepal is by definition accounted for as a non-vulnerability case. A built-in denial of the handicap of land-lockedness. *(Inadequate measurement)*
Share of primary sectors in GDP (component of the EVI)	CDP takes the view that, the larger the share of primary sectors (agriculture, forestry, fisheries) in GDP, the greater the exposure of the economy to physical shocks, notably natural disasters.	With agriculture accounting for a greater share of GDP than the average for other LDCs (by 24%), Nepal is portrayed by this indicator as a country sizeably exposed to natural shocks. Yet one knows that Nepal's agriculture has been little unstable. The overstated perception of vulnerability here may be seen as counterbalancing the inadequate measurements through which Nepal's vulnerability is understated. *(Inadequate measurement)*
Merchandise export concentration index (component of the EVI)	The more concentrated the export structure of a country, the more exposed to external shocks (i.e. the more vulnerable) its economy.	With the lowest merchandise export concentration score among LDCs, Nepal is portrayed as a relatively diversified economy. Given the absence of service exports in the index, the perception of diversification and structural economic progress is valid. Whether this is synonymous with greater resilience or lesser vulnerability in Nepal remains debatable. *(Partially adequate measurement)*
Proportion of victims of natural disasters in the population (component of the EVI)	The larger the proportion of disaster victims in the population of a country, the more evident the vulnerability of the nation to natural shocks.	Nepal was correctly accounted for, at the time of the 2015 review of the list, as a nation with a relatively small ratio of disaster victims (72% below the average for other LDCs). It is noteworthy that the impact of the 2015 disasters was not reflected in these figures. *(Adequate measurement)*
Index of agricultural production instability (component of the EVI)	CDP takes the view that, the more unstable the agricultural performance of a country, the greater the impact of natural disasters must have been, thereby revealing vulnerability to shocks.	With the third lowest score among all LDCs in 2015, Nepal is considered as not having suffered much from instability of agricultural production. An assumption corroborated by agricultural data, though the latter have not yet fully incorporated the impact of the 2015 disasters. *(Adequate measurement)*
Index of goods and services export instability (component of the EVI)	CDP takes the view that, the more unstable the export earnings of a country, the greater the trade-related shocks must have been (prices and/or volumes). In sum, the more unstable the country's exports, the more vulnerable its economy.	With the 11th lowest instability level among all LDCs in 2015, Nepal was rightly considered as not having suffered substantially from export instability. This finding will be revisited in 2018 in the light of the updated index incorporating the impact of the 2015 natural disasters. *(Adequate measurement)*

Source: UNCTAD, Division for Africa, Least Developed Countries and Special Programmes

6. Conclusion

Irrespective of country status, Nepal will remain a country vulnerable to economic and natural shocks. Its economic model based on remittance-driven growth through a largely import-fuelled tertiary sector is vulnerable to exogenous factors beyond government control. Any post-graduation development strategy therefore would need to give priority to resilience-building through local capacity development, modernization and structural transformation, supported by policies that are conducive to employment-rich investment. The Government will also need to invest substantially in disaster preparedness in order to mitigate the effects of possible further disasters, whether due to climate change or to other natural phenomena.

The Government of Nepal has fully embraced the objective of graduation from LDC status in the national development strategy. The 13th three-year plan 2013/14-2015/16 formulated a long-term vision of graduation by 2022.

Policy makers are aware of the requirements underpinning this vision, *inter alia*, substantial public and private investment, including foreign direct investment, to overcome the infrastructural constraints and to enhance productive capacities, particularly in manufacturing, hydropower, agricultural niche products, including organic foods, and tradable services such as tourism.

However, political instability, slowness in capital expenditure, and the effects of the 2015 earthquakes have hindered the fulfilment of most of the targets set by the 13th three-year plan. Consequently, some have cast doubt on the pertinence of a loss of LDC status by 2022. There have been suggestions to aim at meeting graduation criteria without contemplating a specific time frame for reclassification, until the income base has become stronger and the implications of graduation on aid flows, market access, special and differential treatment and international obligations have been clarified.

ANNEX
The graduation criteria and the graduation rule

The question of graduation from LDC status was conceptualized by the United Nations in 1991, when the first major revision of the criteria for identifying LDCs took place. The methodological elements of the graduation rule were also adopted in that year, a move that has paved the way for five cases of graduation from LDC status: Botswana in 1994, Cabo Verde in 2007, Maldives in 2011, Samoa in 2014, and Equatorial Guinea in 2017.

In 1990, the Second United Nations Conference on the Least Developed Countries in Paris had envisaged graduation from LDC status as a natural prospect for countries that would eventually demonstrate enough economic progress to be able to remain on the same development path with a lesser need for concessionary treatment. In 2001, the Third United Nations Conference on the Least Developed Countries in Brussels contemplated graduation as a criterion on the basis of which the success of the Programme of Action for the Least Developed Countries for the Decade 2001-2010 would be "judged" [48] . An unprecedented leap forward was made by UN member States ten years later, at the Fourth United Nations Conference on the Least Developed Countries in Istanbul (May 2011), with a bold pronouncement on the matter, namely, “the aim of enabling half the number of Least Developed Countries to meet the criteria for graduation by 2020”[49].

The rationale for graduation

Graduation from LDC status is naturally synonymous with the recognition of structural economic progress. A graduating country will necessarily be expected to have demonstrated, through a convincingly improved economic and social performance, enough structural progress to be able to pursue its development efforts with less external support. If the decision to take a country out of the list of LDCs is well founded, the graduating country, with enhanced institutional capacities, will be expected to remain undisturbed while development partners may deny it privileged access to a special treatment.

The graduation rule

The graduation rule applies specific thresholds to the indicators relevant to the three criteria (gross national income per capita; human assets index; economic vulnerability index). For each of these indicators, there is a margin between the threshold for adding a country to the list and the threshold for graduating a country. The margin is considered a reasonable estimate of the additional socio-economic progress that ought to be observed if one assumes that the graduating country is effectively engaged on a path of improvement: not only is the graduating country expected to have risen to the threshold under which non-LDCs would be admitted into the category, but it is additionally expected to exceed this threshold by a significant margin. This dispels the risk that graduation be dictated by temporary or insignificant economic circumstances.

[48] UN General Assembly, Third United Nations Conference on the Least Developed Countries, Brussels, Belgium, 14-20 May 2001, Programme of Action for the Least Developed Countries for the Decade 2001-2010, para. 21(e)

[49] United Nations, Programme of Action for the Least Developed Countries for the Decade 2011-2020, May 2011, para. 28.

Two other elements of the graduation rule also imply durable structural progress in the graduating country:

- at least two of the three graduation thresholds must normally be met for the relevant LDC to qualify for graduation, whereas a symmetrical application of the admission rule and graduation rule would imply that, ceasing to meet one of the three criteria under which the country was once identified as an LDC would be a sufficient reason for that country to qualify for graduation (see the "income only" exception to the graduation rule in the table below);

- a recommendation to graduate a country will not be made until the relevant graduation thresholds have been met by the country in at least two consecutive reviews of the list of LDCs.

The graduation criteria which were used by the United Nations in the 2015 review of the list of LDCs are summarized in the following table.

Graduation criteria and indicators

Graduation criteria used in the 2015 review of the UN list of LDCs	Relevant indicators
Per capita income criterion	**Gross national income (GNI) per capita:** * based on a 3-year average (2011-2013 in the 2015 review) * graduation threshold in 2015: US $1,242 * "income-only" graduation threshold: US $2,484
Human assets criterion	**Human Assets Index (HAI):** A composite index based on the following 4 indicators: * percentage of undernourished people in the population * under-five mortality rate * gross secondary school enrolment rate * adult literacy rate
Economic vulnerability criterion	**Economic Vulnerability Index (EVI):** A composite index based on the following 8 indicators: * population * remoteness (average distance from major markets) * share of population living in low-lying areas * share of agriculture, forestry and fisheries in GDP * merchandise export concentration index * share of victims of natural disasters in the population * index of instability of agricultural production * index of instability of exports of goods and services
Summary of the graduation rule	For all three criteria, different thresholds are used for identifying cases of addition to, and cases of graduation from, the list of LDCs. A country will qualify to be added to the list if it meets the addition thresholds on all three criteria and does not have a population greater than 75 million. Qualification for addition to the list will effectively lead to LDC status only if the government of the relevant country accepts this status. A country will normally qualify for graduation from LDC status if it has met graduation thresholds under at least two of the three criteria in at least two consecutive triennial reviews of the list. However, if the per capita GNI of an LDC has risen to a level at least double the graduation threshold and is deemed sustainable, the country will normally be found pre-eligible or eligible for graduation regardless of its performance under the other two criteria.