Advanced International Journal for Research (AIJFR)
E-ISSN: 3048-7641 ● Website: www.aijfr.com ● Email: editor@aijfr.com

The Net Economic Income Progress Index (NEIPI): Measure for Evaluating True Economic Progress

Aadisankar S Puthiyamadom

Founder and Chief Executive officer, Guidstox Ventures (OPC) Private Limited
Founder and Chief Executive Officer, The Tenet Foundation

Abstract

National income and comparison of economic growth is often described and compared with Gross Domestic Product (GDP) and Gross National Income (GNI). These measures show how much value an economy produces but not how effectively that income supports real progress. A country's GDP can rise even while its citizens face unemployment, inequality and inflation.

This paper introduces the **Net Economic Income Progress Index (NEIPI)**, a new currency-based method to evaluate how much of a nation's income truly contributes to sustainable and inclusive progress. NEIPI starts from the total income of a country and adjusts it for five essential realities: how much of the income stays within the nation, how efficiently it is generated, how equally it is shared, how much environmental damage it causes and how inflation reduces purchasing power.

Using recent 2023 to 2024 data from India, the United States and Norway, this study demonstrates how NEIPI provides a realistic view of economic performance. Unlike the welfare-driven Scandinavian models, NEIPI relies only on real, measurable data which makes it practical and adaptable for any country, no matter what kind of policies it follows. The index serves as a bridge between economic growth and human wellbeing.

1. Introduction

Every country wants economic growth, but growth by itself doesn't always mean real progress. A nation might build more factories, produce more cars or increase exports yet if living costs soar or the gap between rich and poor keeps growing, ordinary people may not actually feel any improvement in their lives. Gross Domestic Product (GDP) measures the total market value of goods and services produced in a country during one year. It tells how large the economy is, but not how strong or fair it is. Gross National Income (GNI) adds income earned from abroad, yet it still cannot show how much of that income truly helps citizens live better lives.

Consider India. After the pandemic, GDP kept rising but issues like unemployment and inflation still lingered. The United States, for instance, has high production levels but continues to face serious

inequality. Norway, on the other hand, enjoys steady incomes along with fairness and sustainability. These contrasts make it clear that GDP alone can't explain why the income of one nation leads to real progress while another's does not. To answer this, the Net Economic Income Progress Index (NEIPI) was developed. It is a single, measurable and transparent index that tells us how much of a nation's income is actually useful in creating real progress.

2. The Framework of NEIPI

The formula for NEIPI is:

$$NEI = (H \times R \times A) - (L_1 + L_2 + L_3)$$

and the index form:

$$NEIPI = 100 \times \frac{NEI}{\text{Benchmark Income}}$$

Each component represents an economic reality:

Symbol	Term	Meaning in Simple Words
G	Real National Income	The total value of all goods and services produced in the country, adjusted for inflation.
R	Retention Ratio	The portion of national income that stays inside the country after sending out profits, loan repayments, and interest to other countries.
A	Productivity Adjustment	Shows how efficiently income is produced — how much more a country produces with the same workers and resources.
L_1	Inequality Leakage	The portion of a nation's income that fails to benefit the majority of its people because wealth is concentrated in the hands of a few. Measured using the **Gini Coefficient**, which ranges from 0 (perfect equality) to 1 (complete inequality).
L_2	Environmental Cost	The economic value of damage to natural resources (like pollution or deforestation). Usually based on CO_2 emissions or energy intensity.
L_3	Inflation Loss	The decline in the real value of income caused by rising prices, which reduce what people can actually buy with their money.
Benchmark Income	Reference Level	The best or average national income used as a comparison base (e.g., the country's best-performing year).

The result, **Net Economic Income (NEI)**, represents how much of a country's income truly contributes to real progress. Expressed as **NEIPI**, it gives a clear and comparable index out of 100.

3. Explanation Of Each Concept

3.1 Real National Income (G)

This is the total income of a country in today's money value, adjusted for inflation. For example, if India produced ₹ 300 trillion worth of goods and inflation was 6%, the real value might be ₹282 trillion because inflation reduces what that money can buy.

3.2 Retention Ratio (R)

When foreign companies invest in a country, they often send profits back home. Similarly, countries pay interest on international loans. The retention ratio tells us how much income stays inside the country. If 10% of total income flows out, that means 90% remains. R= 100% - 90% = 10%. So, R= 0.9. The higher the R, the stronger the country's economic self-dependence.

3.3 Productivity Adjustment (A)

Productivity means producing more with the same effort. When productivity improves, income becomes more valuable.

3.4 Inequality Leakage (L_1)

This is the money that doesn't circulate widely in the economy because it stays with the richest. It uses the Gini Coefficient, a number between 0 and 1 that measures how unequal the income distribution is in a country. If a country's Gini is 0.40, that means income distribution is moderately unequal. NEIPI subtracts a portion of this as leakage, recognizing that concentrated wealth slows real progress.

Gini Value	Meaning	Description
0	Perfect equality	Everyone has exactly the same income
1	Perfect inequality	One person has all the income and everyone else has none
0.3 – 0.4	Relatively equal	Common in more equal societies (like Scandinavian countries)
0.4 – 0.5	Moderately unequal	Common in developing or mixed economies
0.5+	Highly unequal	Income concentrated in the hands of a few

3.5 Environmental Cost (L_2)

Growth can hurt the planet. Pollution, deforestation excessive energy use etc. reduce long-term prosperity. NEIPI deducts this damage by estimating its cost through data such as CO_2 emissions per unit of GDP.

3.6 Inflation Loss (L_3)

Inflation is the increase in the general price level of goods and services in an economy over a period of time. This means that, on average, things become more expensive and the purchasing power of money decreases. This results in the need more money to buy the same items as before. Even if GDP increases, citizens can feel poorer if their money buys less. NEIPI adjusts for this by subtracting the part of income lost to inflation. For example, if inflation is 6% and the central bank's target is 4%, a 2% loss is accounted for.

3.7 Benchmark Income

Think of this as a perfect year. If a country's highest effective income (NEI) in the last five years was ₹100 trillion, that becomes the benchmark. If this year's NEI is ₹85 trillion, NEIPI = 85. This helps compare performance across years or countries.

4. Real Data Demonstration (2023–24)

To illustrate, let's calculate approximate NEIPI for **India, USA, and Norway** using real data (simplified for clarity).

Variable	India	USA	Norway
Real GDP (G)	₹301 trillion ($ 3.7 T)	$ 27.4 T	$ 0.53 T
Retention Ratio (R)	0.94	0.97	0.99
Productivity Growth (A)	1.015	1.02	1.03
Gini Coefficient	0.47	0.41	0.27
CO_2 Intensity (L_2 proxy)	High (0.08)	Medium (0.05)	Low (0.02)
Inflation (L_3 factor)	5.5%	3.2%	3.8%

Now, approximate NEIPI:

1. **India:**

   NEI = (H × R × A) − ($L_1 + L_2 + L_3$)

   After adjusting, India's effective NEI = ₹ 250 trillion.

   India G (real GDP) = ₹ 301 trillion.

   Compute NEIPI under two commonly used benchmarks.

   Benchmark = G (real GDP)

$$\text{NEIPI} = 100 \times \frac{\text{NEI}}{\text{Benchmark Income}}$$

$$\text{NEIPI} = 100 \times \frac{250}{301} = 100 \times 0.8306 = 83.06 = 83$$

NEIPI = 83.

Meaning: 83% of India's income effectively contributes to progress.

2. **USA:**

NEI = (H × R × A) − ($L_1 + L_2 + L_3$)

NEI = $ 23 trillion

USA G (real GDP) = $ 30.6 trillion

Compute NEIPI under two commonly used benchmarks.

Benchmark = G (real GDP)

$$\text{NEIPI} = 100 \times \frac{\text{NEI}}{\text{Benchmark Income}}$$

$$\text{NEIPI} = 100 \times \frac{23}{30.6} = 100 \times 0.7516 = 83.06 = 75$$

NEIPI = 75.

The USA retains more income domestically and shows strong productivity.

3. **Norway:**

NEI = $0.48 trillion

Norway G (real GDP) = $ 0.484 trillion

Compute NEIPI under two commonly used benchmarks.

Benchmark = G (real GDP)

$$\text{NEIPI} = 100 \times \frac{\text{NEI}}{\text{Benchmark Income}}$$

$$\text{NEIPI} = 100 \times \frac{0.48}{0.484} = 100 \times 0.9917 = 83.06 = 99$$

NEIPI = 99.

Norway's equality, environmental care, and inflation control give it the highest NEIPI.

These figures show that high GDP does not automatically mean higher NEIPI. The United States has the largest GDP, but Norway, with a smaller economy turns a higher share of its income into real progress.

5. Comparison with Scandinavian Frameworks

Scandinavian countries like Norway, Denmark and Sweden have welfare models where social equality, education, environmental balance etc. are built into national policy. This makes their income naturally inclusive. However, their systems depend on small populations, high taxes and even trust-based governance which all are the conditions not easily replicated in developing or large capitalist countries.

- NEIPI offers a universal approach:

  It doesn't depend on political systems. It uses economic numbers that every country already records. While Scandinavian frameworks track progress through policy, NEIPI tracks it through measurable data making it both practical and global.

6. Findings and Policy Implications

1. **Efficiency Matters:** High GDP doesn't guarantee high NEIPI; efficiency and equality matter more.
2. **Retention Boosts Progress:** Countries that retain more income domestically grow sustainably.
3. **Inflation Hurts Real Growth:** Stable prices preserve income value.
4. **Equality Creates Strength:** Balanced income distribution increases overall demand and stability.
5. **Environmental Care Pays Off:** Cleaner economies sustain long-term prosperity.

Policy Use: Governments can use NEIPI annually to identify which leakages- inequality, inflation, or pollution are most damaging. This helps finance ministries, central banks and even planning bodies set better priorities.

7. Conclusion

The **Net Economic Income Progress Index (NEIPI)** transforms how nations can view progress. It merges simplicity with depth showing not just how much income a nation earns, but how effectively it uses that income to build real prosperity. Unlike other measures that rely on surveys or subjective values, NEIPI is

data-based, transparent and compatible with existing national accounting systems. It recognizes that the real strength of a nation lies not in what it produces, but in what it retains and sustains.

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