

Inflation and the Standard of Living of Four Income Groups in India:

An Illustrative Analysis of Who Bears the Burden of Rising Prices

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Abstract

The same rise in prices does not cost every household the same. This paper uses an illustrative simulation of four Indian families earning Rs 300, Rs 500, Rs 1,000 and Rs 2,000 a day, each facing the same basic basket of food and essentials (Rs 285 a day) and the same minimum health and transport need (Rs 40 a day). At 0 per cent price rise the low-income family already falls Rs 25 a day short; a 20 per cent rise widens the gap to Rs 90 a day, or Rs 2,700 a month, which must be borrowed. The middle-income family loses 37 per cent of the money left after essentials, the upper-middle-income family 10 per cent and the high-income family 4 per cent. Borrowing the gap at 2 per cent a month leaves the low-income family about Rs 36,000 in debt after one year. A money wage rising 3 per cent a year against prices rising 6 per cent erodes the real wage by 13 per cent in five years.

The paper places these results within the concept of inflation, Engel's Law, the Public Distribution System (PDS) and the state's monetary, administrative, trade and supply-side instruments. It identifies three gaps: inflation is regressive; the protection the PDS offers on paper is larger than what reaches households, because of poor grain quality and diversion; and India's food-security system protects against hunger but not against price shocks in vegetables, pulses, milk and protein. It recommends a price index built on the spending pattern of poor households, minimum-wage dearness allowances linked to it and enforced, better PDS quality and a wider basket, wage growth tied to productivity, and faster, evidence-based action against hoarding and diversion. The numbers are illustrative; testing them with official survey data is set out as the next step.

Keywords: inflation; cost of living; Engel's Law; income inequality; Public Distribution System; dearness allowance; real wages; debt trap; India

1. Introduction

A single official inflation rate hides very different experiences. When the price of rice, vegetables or cooking gas rises, a daily-wage worker and a salaried professional pay the same new price, but the share of their income that disappears is not the same.

This paper asks one question: **how much does the same rise in the prices of essentials reduce the standard of living of a low-income, a middle-income, an upper-middle-income and a high-income family?** It answers with a transparent simulation of four representative families, each shown first as a figure and then as a table, and then places the result in the Indian policy setting: the Public Distribution System, dearness allowances, the Reserve Bank of India's monetary policy, trade and supply-side measures, and enforcement against hoarding and diversion.

The contribution is threefold. First, it shows in simple, reproducible numbers why inflation is regressive. Second, it links that burden to the debt trap of the poorest households. Third, it identifies where existing protections fall short in practice, drawing on the author's long field experience in Tamil Nadu and Andhra Pradesh, including 25 years in the Tamil Nadu Police.

2. Inflation: Concept, Types and Dual Nature

Definition. Inflation is a sustained rise in the general price level, which reduces the purchasing power of money. The classic description is "too much money chasing too few goods": the supply of money and spending grows faster than the supply of goods and services. This monetary view is associated with the quantity theory of money ($MV = PT$) and with Friedman's (1970) statement that inflation is "always and everywhere a monetary phenomenon".

Types. In India, money is only one of several causes:

Type	Cause	Indian example
Demand-pull	Money and spending grow faster than output	Credit expansion, festival-season demand
Cost-push	Costs of production rise	Diesel prices raise transport costs of every good
Supply shock	Sudden shortage of a particular good	A failed monsoon sends tomato and onion prices up sharply
Imported	World prices rise or the rupee weakens	Crude oil, edible oil and fertiliser imports

Food and fuel supply shocks account for much of the variation in Indian consumer inflation. This matters for inequality, because food is the largest item in a poor household's budget (Section 3).

Deflation and disinflation. Deflation is the opposite condition: a sustained fall in the general price level, when goods are plentiful relative to money. It is also harmful. People postpone purchases in expectation of lower prices, output and employment fall, and the real burden of debt rises (Fisher, 1933). Disinflation is different: prices still rise, but more slowly.

Real income. Real income equals money income divided by the price level. If wages rise 5 per cent and prices rise 8 per cent, real income falls by about 3 per cent.

How much inflation is healthy? Most economists regard mild, stable inflation as compatible with growth. Since 2016 the Reserve Bank of India has followed flexible inflation targeting under Section 45ZA of the RBI Act, 1934, with a target of 4 per cent consumer-price inflation within a band of 2 to 6 per cent.

Dual nature. Mild inflation can act as a development factor: rising prices improve expected profits and encourage investment and employment, the trade-off associated with the Phillips curve (Phillips, 1958). Uncontrolled inflation is an economic risk that can end in hyperinflation, as in Germany in 1923 or Zimbabwe in 2008. The central argument of this paper is that **the benefits and the burdens of inflation are not shared equally**: the gains accrue mainly to holders of assets such as land, gold and shares, while the losses fall on those who hold cash and earn fixed or daily wages.

3. Engel's Law: Why Inflation Falls Hardest on the Poor and the Middle Class

Engel's Law states that as household income rises, the share of income spent on food falls, even though the amount spent on food may rise (Engel, 1857). A family earning Rs 500 a day that spends Rs 300 on food devotes 60 per cent of its income to food; a family earning Rs 1,000 that spends the same Rs 300 devotes only 30 per cent.

The consequence for inflation is direct. A price rise in food and essentials takes a larger bite out of a small income than out of a large one. Each household also has a personal inflation rate that depends on what it buys: because food prices are the most volatile, households that spend most on food face the most volatile and often the highest personal inflation.

The low-income and middle-income groups are hit hardest because they have the least room left after essentials. The middle class faces a further pressure: when the Reserve Bank raises interest rates to fight inflation, the monthly instalments on home, vehicle and education loans also rise, so the family pays twice, once at the shop and once at the bank.

4. Method: An Illustrative Simulation of Four Families

The analysis follows four representative families through four price scenarios. The numbers are hypothetical but chosen to be realistic for a town such as Puttur, and every step is simple arithmetic that a reader can check. The Python program that produces all figures and tables is available from the author.

Assumption	Value
A1. Daily income of the four families	Low income Rs 300; middle income Rs 500; upper-middle income Rs 1,000; high income Rs 2,000
A2. Basic basket, the same for every family	Rs 285 a day: food Rs 190 + other essentials (fuel, clothing, soap and household items) Rs 95
A3. Minimum health and transport need	Rs 40 a day
A4. Price scenarios	Prices of all essentials rise by 0, 10, 20 or 30 per cent; income stays the same
A5. Wage scenarios (Section 6)	Dearness allowance of 3 per cent, or full indexation; wages +3 per cent a year against prices +6 per cent a year
A6. Borrowing (Section 7)	The low-income family borrows its monthly shortfall at 2 per cent a month (24 per cent a year) and repays nothing within the year

Two measures summarise the standard of living:

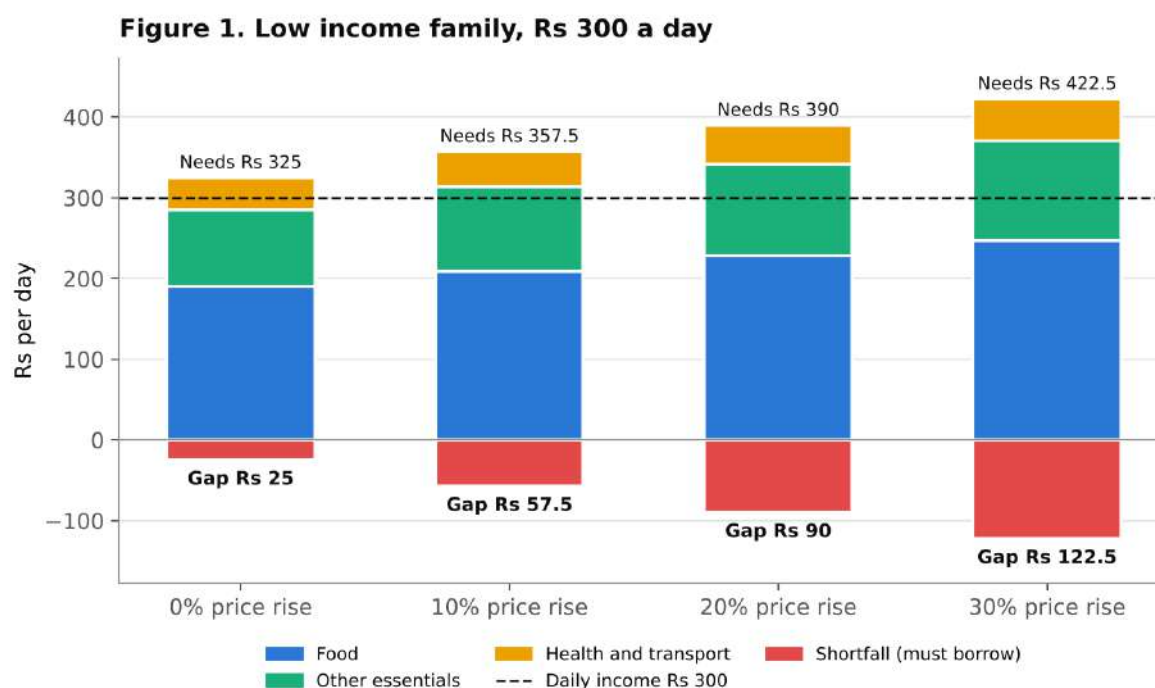
1. **Share of income spent on the basic basket.** The higher it is, the less the family can spend on anything else.
2. **Money left after essentials** (income minus the basket minus health and transport). This is what pays for education, savings, festivals, emergencies and any improvement in life. When it is negative, the family must borrow.

A month is taken as 30 days.

5. Results

Each family is shown first as a figure, then as a table, followed by what the numbers mean. A negative value means a shortfall that must be borrowed.

5.1 Low-income family (Rs 300 a day)



Illustrative simulation. Basic basket Rs 285/day (food 190 + other essentials 95); minimum health and transport Rs 40/day. All essential prices rise by the scenario rate; income unchanged.

Table 1. Low-income family (Rs 300 a day)

Price rise	Basic basket (Rs/day)	Basket as % of income	Left after basket (Rs/day)	Health and transport (Rs/day)	Left after all essentials (Rs/day)	Per month (Rs)
0%	285.0	95.0	15.0	40.0	-25.0	-750
10%	313.5	104.5	-13.5	44.0	-57.5	-1,725
20%	342.0	114.0	-42.0	48.0	-90.0	-2,700
30%	370.5	123.5	-70.5	52.0	-122.5	-3,675

What it shows. The low-income family is in deficit even before prices rise. After buying the basic basket it has Rs 15 left, not enough for the Rs 40 it needs for health and transport, so it falls Rs 25 a day short. A 10 per cent price rise makes the basket alone cost more than the whole income. At a 20 per cent rise the monthly shortfall reaches Rs 2,700, and at 30 per cent Rs 3,675. For this family a price rise does not reduce savings or comforts, because there are none; it directly increases borrowing, or forces cuts in food, medicine or children's schooling.

5.2 Middle-income family (Rs 500 a day)

Figure 2. Middle income family, Rs 500 a day



Illustrative simulation. Basic basket Rs 285/day (food 190 + other essentials 95); minimum health and transport Rs 40/day. All essential prices rise by the scenario rate; income unchanged.

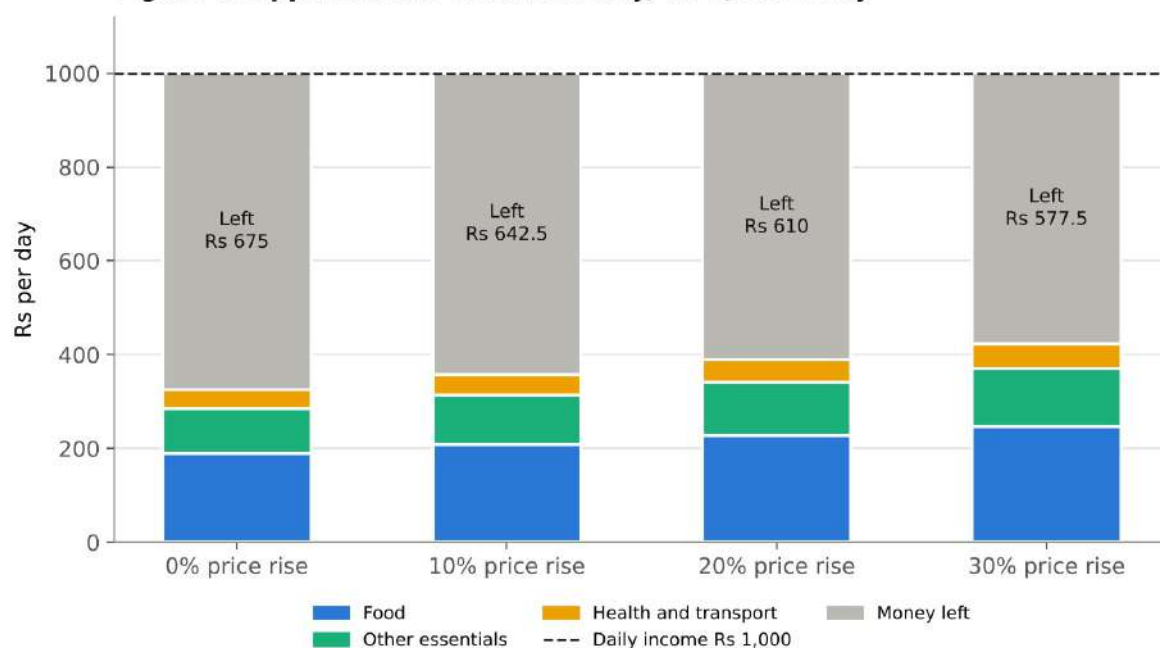
Table 2. Middle-income family (Rs 500 a day)

Price rise	Basic basket (Rs/day)	Basket as % of income	Left after basket (Rs/day)	Health and transport (Rs/day)	Left after all essentials (Rs/day)	Per month (Rs)	Change in money left
0%	285.0	57.0	215.0	40.0	175.0	5,250	—
10%	313.5	62.7	186.5	44.0	142.5	4,275	-18.6%
20%	342.0	68.4	158.0	48.0	110.0	3,300	-37.1%
30%	370.5	74.1	129.5	52.0	77.5	2,325	-55.7%

What it shows. The middle-income family survives without borrowing, but its margin is thin. More than half of its income already goes on the basic basket. Every 10 per cent rise in prices removes almost a fifth of the money left after essentials: a 20 per cent rise cuts it by 37 per cent, from Rs 5,250 to Rs 3,300 a month, and a 30 per cent rise by 56 per cent. This is the money that pays for school fees, savings, medical emergencies and festivals. One illness or a rise in loan instalments is enough to push this family into the position of the low-income family.

5.3 Upper-middle-income family (Rs 1,000 a day)

Figure 3. Upper-middle income family, Rs 1,000 a day



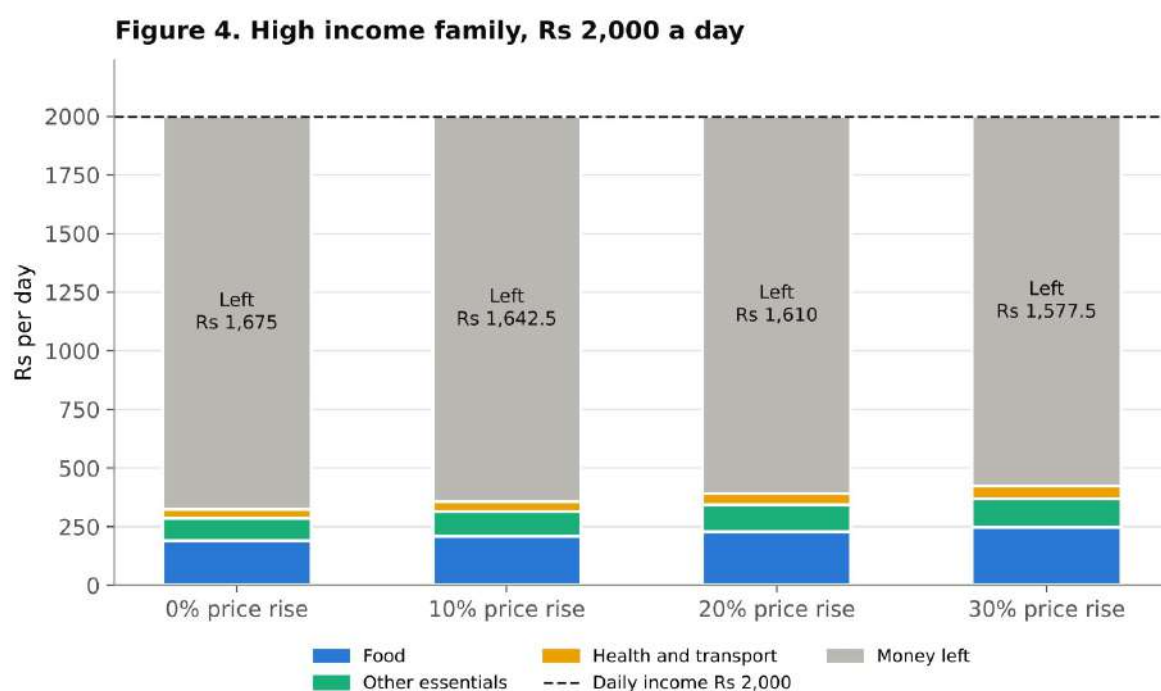
Illustrative simulation. Basic basket Rs 285/day (food 190 + other essentials 95); minimum health and transport Rs 40/day. All essential prices rise by the scenario rate; income unchanged.

Table 3. Upper-middle-income family (Rs 1,000 a day)

Price rise	Basic basket (Rs/day)	Basket as % of income	Left after basket (Rs/day)	Health and transport (Rs/day)	Left after all essentials (Rs/day)	Per month (Rs)	Change in money left
0%	285.0	28.5	715.0	40.0	675.0	20,250	—
10%	313.5	31.4	686.5	44.0	642.5	19,275	–4.8%
20%	342.0	34.2	658.0	48.0	610.0	18,300	–9.6%
30%	370.5	37.1	629.5	52.0	577.5	17,325	–14.4%

What it shows. The upper-middle-income family feels the price rise but is not threatened by it. Even at a 30 per cent rise, the basic basket takes only 37 per cent of its income, and it keeps Rs 17,325 a month after essentials. The loss of about Rs 975 a month for each 10 per cent rise is the same rupee amount the middle-income family loses, but here it is only 5 per cent of the money left, against 19 per cent for the middle-income family. The family can absorb the rise by postponing purchases or saving a little less.

5.4 High-income family (Rs 2,000 a day)



Illustrative simulation. Basic basket Rs 285/day (food 190 + other essentials 95); minimum health and transport Rs 40/day. All essential prices rise by the scenario rate; income unchanged.

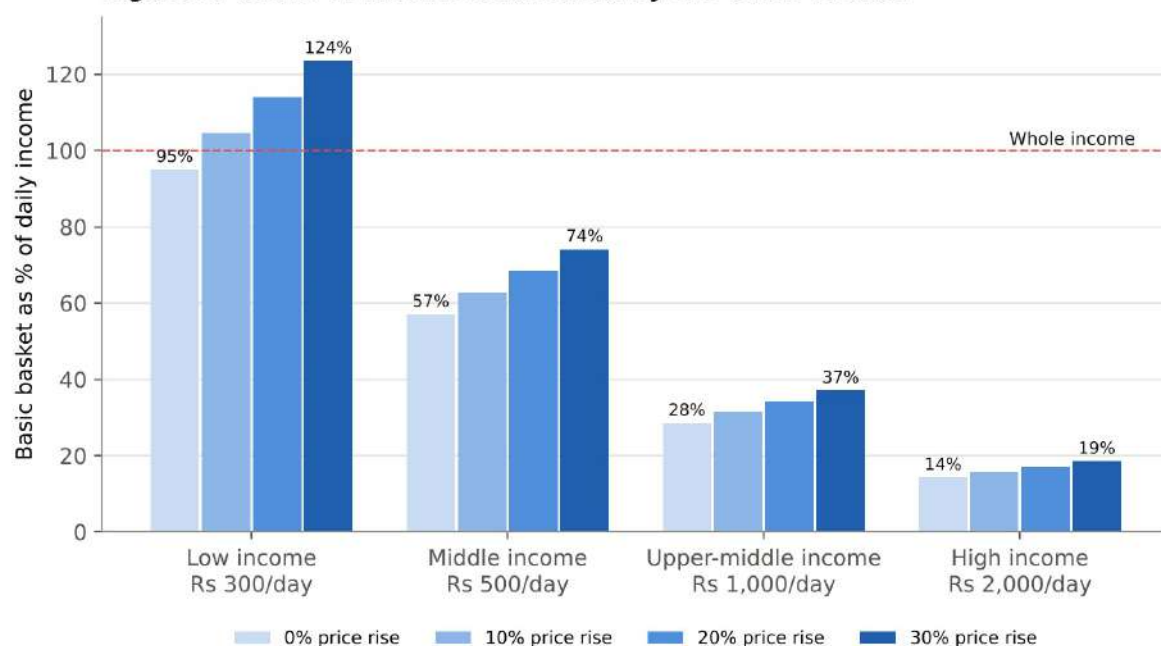
Table 4. High-income family (Rs 2,000 a day)

Price rise	Basic basket (Rs/day)	Basket as % of income	Left after basket (Rs/day)	Health and transport (Rs/day)	Left after all essentials (Rs/day)	Per month (Rs)	Change in money left
0%	285.0	14.3	1,715.0	40.0	1,675.0	50,250	—
10%	313.5	15.7	1,686.5	44.0	1,642.5	49,275	–1.9%
20%	342.0	17.1	1,658.0	48.0	1,610.0	48,300	–3.9%
30%	370.5	18.5	1,629.5	52.0	1,577.5	47,325	–5.8%

What it shows. For the high-income family the price rise is almost invisible. The basic basket stays below a fifth of income in every scenario, and a 30 per cent rise reduces the money left after essentials by less than 6 per cent. In practice this family is often protected further, because it holds assets such as land, gold, shares and fixed deposits whose value or returns tend to rise with prices (Section 2).

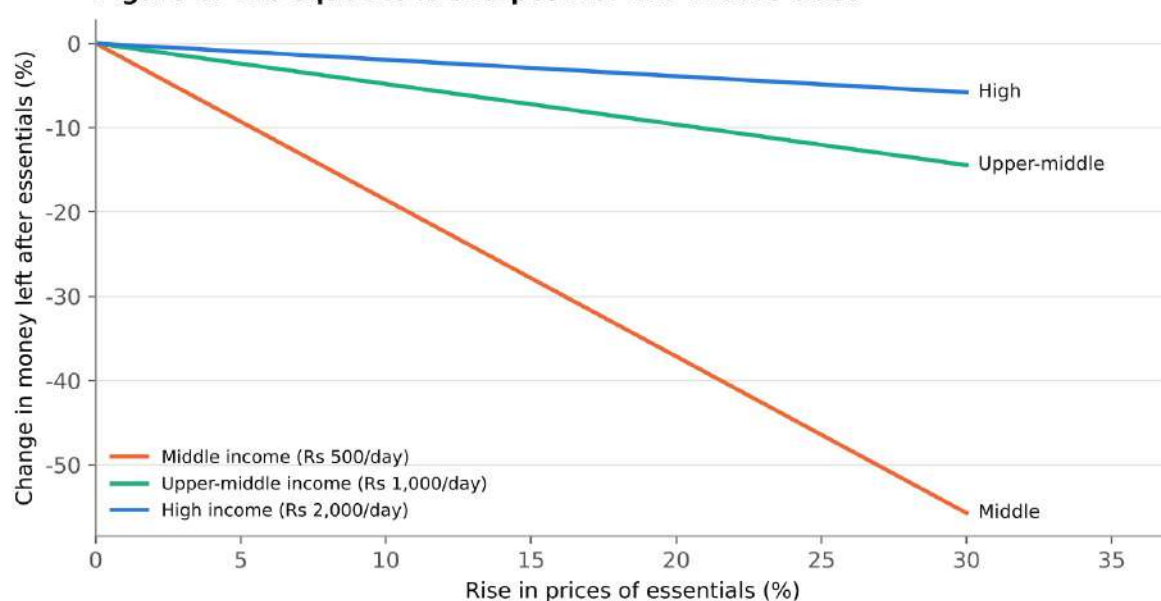
5.5 Comparison across the four groups

Figure 5. Share of income swallowed by the basic basket



Illustrative simulation. Basic basket Rs 285/day (food 190 + other essentials 95); minimum health and transport Rs 40/day. All essential prices rise by the scenario rate; income unchanged.

Figure 6. The squeeze is sharpest for the middle class



Illustrative simulation. Basic basket Rs 285/day (food 190 + other essentials 95); minimum health and transport Rs 40/day. All essential prices rise by the scenario rate; income unchanged. The low-income family has no money left even at 0% (see Figure 1).

Table 5. The same 20 per cent price rise, four different outcomes

Family	Daily income (Rs)	Basket as % of income, 0% → 20%	Money left after essentials per month (Rs), 0% → 20%	Effect of the 20% rise
Low income	300	95.0 → 114.0	-750 → -2,700	Monthly borrowing need rises 3.6 times

Family	Daily income (Rs)	Basket as % of income, 0% → 20%	Money left after essentials per month (Rs), 0% → 20%	Effect of the 20% rise
Middle income	500	57.0 → 68.4	5,250 → 3,300	Money left falls 37.1%
Upper-middle income	1,000	28.5 → 34.2	20,250 → 18,300	Money left falls 9.6%
High income	2,000	14.3 → 17.1	50,250 → 48,300	Money left falls 3.9%

What it shows. In rupees, the 20 per cent rise costs every family exactly the same: Rs 65 a day, or Rs 1,950 a month. What differs is the weight of that loss. It deepens the low-income family's debt, takes more than a third of the middle-income family's spare money, about a tenth of the upper-middle-income family's and a twenty-fifth of the high-income family's. Figure 6 shows that the loss grows in a straight line with the price rise, and that the line is steepest for the middle class, which has spare money to lose but very little of it. This is the arithmetic behind the statement that inflation is a regressive tax: it takes proportionately more from those who have less.

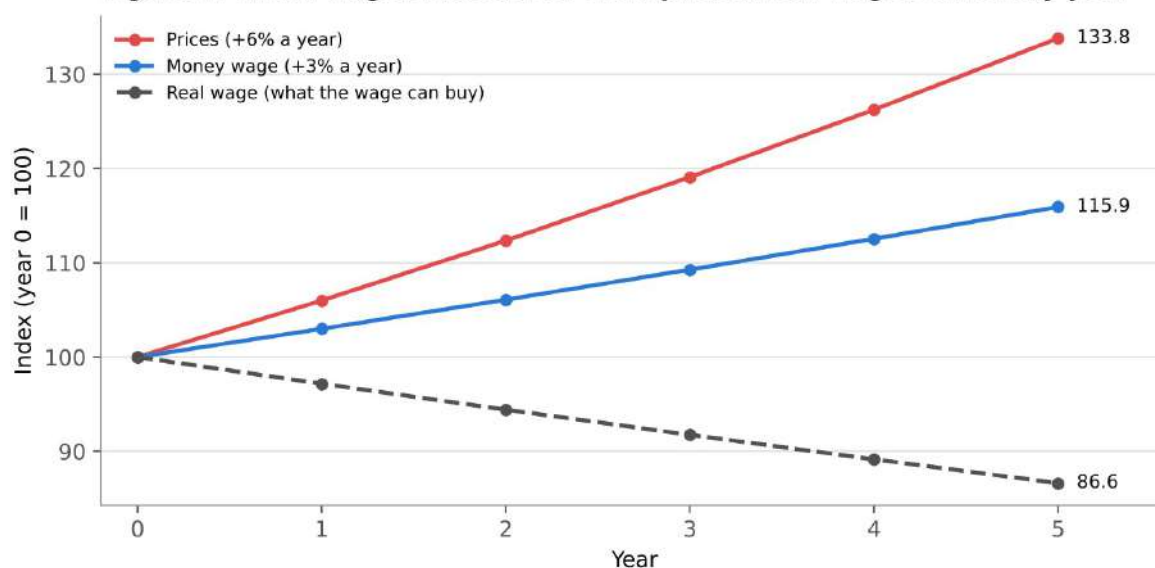
6. Wages versus Prices: Dearness Allowance, Indexation and Real-Wage Erosion

If prices rise 20 per cent, the logical protection is a 20 per cent rise in wages or dearness allowance (DA). In practice, wages rarely keep pace with what families actually pay.

Table 6. Money left after essentials at a 20 per cent price rise, under three wage responses (Rs per day)

Family	Before the price rise	No wage rise	3% DA rise	Full indexation (wage +20%)
Low income (Rs 300)	-25	-90	-81	-30
Middle income (Rs 500)	175	110	125	210
Upper-middle income (Rs 1,000)	675	610	640	810
High income (Rs 2,000)	1,675	1,610	1,670	2,010

What it shows. A 3 per cent DA rise against a 20 per cent price rise restores almost nothing to the families that need it most: the low-income family is still Rs 81 a day short. Full indexation restores every family to its earlier real position, but it also shows a problem: in rupees it gives the high-income family Rs 400 a day more and the low-income family only Rs 60, and it does not lift the low-income family out of deficit, because it was in deficit to begin with.

Figure 7. When wages rise slower than prices, real wages fall every year

Illustrative: money wage +3% per year, prices +6% per year.

Table 7. Money wage, prices and real wage (index, year 0 = 100)

Year	Money wage (+3% a year)	Prices (+6% a year)	Real wage
0	100.0	100.0	100.0
1	103.0	106.0	97.2
2	106.1	112.4	94.4
3	109.3	119.1	91.7
4	112.6	126.2	89.2
5	115.9	133.8	86.6

What it shows. A worker whose pay rises every year can still become poorer every year. With wages rising 3 per cent and prices 6 per cent, the money wage grows by 16 per cent in five years but buys 13 per cent less. The erosion is slow enough to go unnoticed and steady enough to push families towards borrowing.

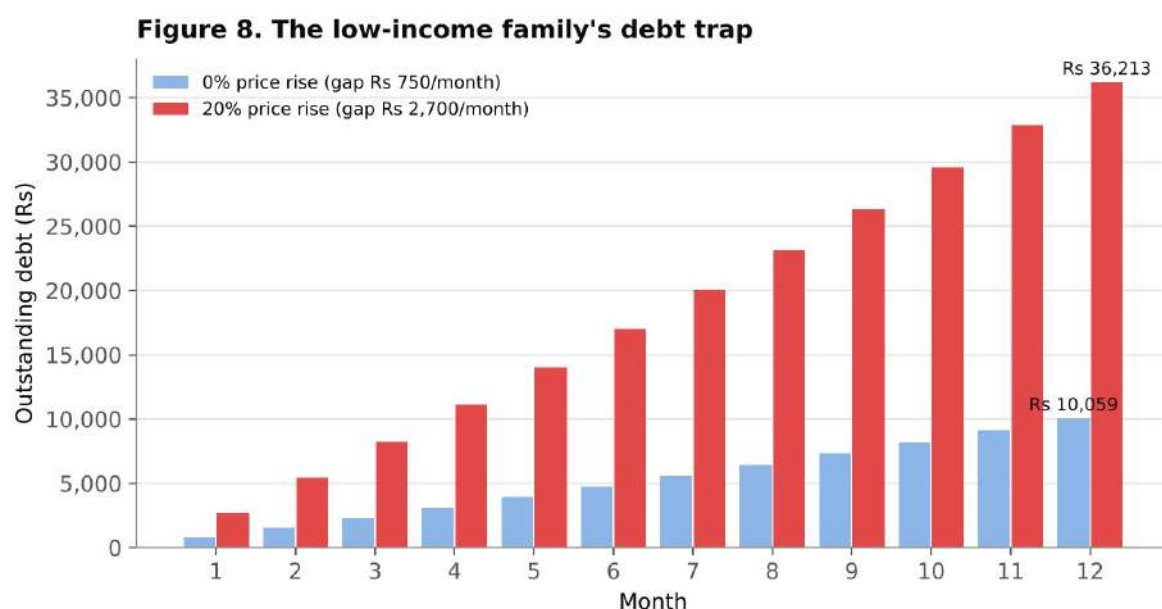
The actual position in India. For central government employees, DA is linked to the All-India Consumer Price Index for Industrial Workers and revised twice a year, so it compensates, with a lag, for measured inflation on basic pay. The larger gaps lie elsewhere:

1. **Most workers have no DA at all.** The large majority of Indian workers are in the informal sector: daily-wage, agricultural, construction and small-shop workers. Many state minimum-wage notifications include a variable dearness allowance, but compliance is weak.
2. **The index is not the poor family's basket.** An average price index gives food a smaller weight than a poor family's budget does (Section 3), so compensation based on it under-compensates the poor when food prices lead inflation.
3. **The lag.** Prices rise today; compensation arrives months later. Borrowing fills the gap.
4. **The private sector.** Annual increments in private employment are seldom linked to inflation at all.

A necessary caution. Full indexation of all wages can feed a wage–price spiral, in which higher wages raise costs, costs raise prices, and prices raise wages again. Protection should therefore be targeted at the lowest earners, and real wage growth must be matched by growth in productivity. Wages that rise faster than output simply become cost-push inflation (Section 2). The state's role is therefore twofold: protect the real wage of the lowest earners, and support higher productivity through skills, credit for small enterprises, farm mechanisation and infrastructure. The author's companion study of working hours makes the related point that productivity depends on effective, not longer, hours (see also Pencavel, 2015).

7. The Debt Trap of the Low-Income Family

A family that cannot meet today's needs borrows; tomorrow it borrows again, now with interest on yesterday's loan. Nurkse (1953) described a "vicious circle of poverty" at the level of a nation, where low income prevents saving and investment; at the level of a household the same logic is usually called a poverty trap or debt trap.



Illustrative: monthly shortfall of the Rs 300/day family borrowed at 2% per month (24% a year), nothing repaid.

Table 8. Outstanding debt of the low-income family, borrowing its shortfall at 2 per cent a month (Rs)

Month	No price rise (gap Rs 750 a month)	20% price rise (gap Rs 2,700 a month)
1	750	2,700
2	1,515	5,454
3	2,295	8,263
6	4,731	17,032
9	7,316	26,337
12	10,059	36,213
Of which interest after 12 months	1,059	3,813

What it shows. Even without any price rise, the low-income family ends the year about Rs 10,000 in debt. A 20 per cent price rise multiplies that to about Rs 36,000, more than four months of the family's entire income, of which Rs 3,813 is interest alone. Two per cent a month is a modest assumption; informal moneylenders often charge far more. This is how a price rise becomes a debt trap: the family cannot save, so it cannot invest in education, health or a small business, so its income does not grow, so it must borrow again.

Two routes lead out of the trap, and both are needed: **prices of essentials must be restrained, or incomes must rise with them.** When wages keep pace with the cost of living, the low-income and middle-income families can move from borrowing towards saving.

8. The Public Distribution System: Purpose, Leakage, Quality and Diversion

Purpose. The fair price shops of the Public Distribution System (PDS) were set up to protect low-income and middle-income households from the prices of essential commodities. The National Food Security Act, 2013 entitles eligible persons to 5 kg of food grains a month, and since January 2023 these grains have been free under the Pradhan Mantri Garib Kalyan Anna Yojana. Several states, including Tamil Nadu and Andhra Pradesh, also supply pulses, edible oil or sugar. Free or subsidised grain lowers the cost of the basic basket in Section 4, so a full measurement of household inflation must account for it.

Leakage. Not all PDS grain reaches the intended households. Estimates for 2011–12 placed the share diverted at over 40 per cent nationally, with wide differences between states (Drèze and Khera, 2015; Gulati and Saini, 2015), and the High Level Committee on restructuring the Food Corporation of India (2015) discussed cash transfers as one response. Reforms such as Aadhaar-linked ration cards and electronic point-of-sale machines are reported to have reduced leakage, but not to have ended it.

Quality. In the author's field observation, grain is sometimes distributed in poor condition, infested with insects or damaged in storage. Households that cannot eat it sell it, often as cattle feed, and the small sum received buys food for only a day or two. Selling inedible grain is a rational choice by the household; the failure lies in storage, transport and supervision.

The diversion chain. The same grain then feeds an organised trade:

1. The beneficiary sells free or subsidised rice for about Rs 5–10 a kg.
2. Mill operators buy it in bulk through intermediaries, polish it and re-bag it.
3. The polished rice is sold, often across state borders, for about Rs 30–40 a kg.

The Civil Supplies CID wing of the police and revenue officials act against this trade, yet it continues. The economic reason is the price gap: a margin of Rs 25–30 a kg between the PDS price and the market price is a strong incentive, and poor grain quality supplies willing sellers. **Enforcement alone cannot overcome a market incentive of this size; raising quality removes the supply of willing sellers at the source.**

What the PDS does not cover. The PDS protects mainly cereals. The sharpest price shocks that hurt poor households are often in items it does not cover:

Covered by the PDS	Not covered
Rice and wheat	Vegetables, including tomatoes and onions, where the largest price spikes occur
In some states: pulses, edible oil, sugar	Milk, eggs, fish and meat
	Cooking gas and transport
	Medicines and education

The consequence is that **the PDS protects households from hunger, but not from price shocks in nutritious food**. The value of PDS support recorded on paper is therefore larger than the protection that actually reaches the household.

9. The State's Instruments against Inflation

The state fights inflation with five sets of instruments. Each works, and each is partly undone in practice.

Instrument	What the state does	Where it falls short
Monetary policy (RBI)	Raises the policy repo rate to slow credit and demand; absorbs surplus money through open market operations	Higher rates also raise the loan instalments of middle-class families; monetary policy cannot fix a crop failure
Administrative controls	Essential Commodities Act, 1955: price controls, stock limits, action against hoarding	Enforcement is uneven; controls can discourage supply if prices are held too low
Trade policy	Restricts exports of scarce food (for example wheat in 2022 and non-basmati white rice in 2023) and cuts import duties (for example on edible oil)	Protects consumers at the expense of farmers' prices; the opposite measures protect farmers at consumers' expense
Supply-side support	Fertiliser, seed and power subsidies; minimum support prices and procurement; PM-KISAN income support of Rs 6,000 a year	Support favours rice and wheat; free power depletes groundwater and urea subsidy encourages overuse
Enforcement	Civil Supplies CID and revenue officials; preventive detention under the Prevention of Black-marketing and Maintenance of Supplies of Essential Commodities Act, 1980	Cases are slow; detention orders are often set aside for procedural defects

Three observations follow.

Small savings schemes are fiscal, not monetary, tools. Kisan Vikas Patra and National Savings Certificates are government small-savings schemes. They draw household savings into government accounts, but they are not instruments of the Reserve Bank's monetary policy.

The food system leans towards cereals. Production support and the PDS both centre on rice and wheat, while the price shocks that hurt the poor most come from vegetables, pulses, milk and protein. This links Sections 8 and 9: the protective system is strongest exactly where the risk is lowest.

Enforcement must be certain, not only severe. Hoarding, smuggling and deliberate restriction of supply are anti-social acts and require firm action. The law already provides for preventive detention of black-marketeers, under Article 22 safeguards. Experience in criminal justice suggests that the certainty and speed of punishment deter more than its severity. Special

fast-track courts for hoarding and diversion cases, and digital tracking of warehouse and mill stocks, would produce evidence that holds in court. Judicial review is a constitutional safeguard and has also expanded food security: the Supreme Court's orders in *PUCI v. Union of India* (Writ Petition (Civil) No. 196 of 2001) turned several food schemes into legal entitlements before the National Food Security Act. Litigation by vested interests does delay administrative action, which is a matter of implementation friction rather than of the courts' role.

India's inflation target has been set in law since 2016 and is pursued by the Reserve Bank's Monetary Policy Committee, which gives price stability a continuity that does not depend on any one government. What the state needs beyond this is administrative capacity and policy continuity in the delivery of food, wages and enforcement.

10. Recommendations

1. **A price index for poor households.** Publish, alongside the headline consumer price index, an index weighted by the spending pattern of the bottom income groups, so that their real inflation is visible.
2. **Enforced minimum-wage dearness allowance linked to that index.** Revise the variable dearness allowance in minimum wages at least twice a year and enforce it, with priority for informal and agricultural workers.
3. **Wage growth tied to productivity.** Pair wage protection with skills training, credit for small enterprises, farm mechanisation and infrastructure, so that higher wages do not turn into cost-push inflation.
4. **Better PDS quality.** Improve storage, transport and inspection so that distributed grain is fit to eat; this protects households and dries up the supply to the diversion trade.
5. **A wider PDS basket.** Extend the basket towards pulses, edible oil and millets, as some states already do.
6. **Protection against perishable price shocks.** Invest in cold storage and supply chains for vegetables, and widen price support and procurement for pulses and oilseeds.
7. **Certain and swift enforcement.** Set up fast-track courts for hoarding and diversion cases and track warehouse and mill stocks digitally, using existing laws with full procedural safeguards.
8. **Relief from high-cost debt.** Expand access to low-interest institutional credit for low-income households, so that a temporary price rise does not become a permanent debt.

11. Limitations and Future Research

The results are an illustrative simulation, not estimates from survey data. Real families differ in size, spending pattern, access to the PDS and sources of income, and richer families also spend more in absolute terms on food. Prices of different essentials rarely rise at the same rate, and the model does not include PDS benefits, which would reduce the low-income family's basket cost. The field observations on PDS quality and diversion are qualitative.

Three extensions would turn this framework into an empirical study:

1. **Group-specific inflation rates** computed from item-level consumer price indices weighted by the spending shares of each income group in the Household Consumption Expenditure Survey 2022–23, with and without the value of free PDS items.

2. **A field survey** of 30 to 50 households in Puttur on ration use, sale of PDS grain, grain quality and the price rises that hurt most, conducted with informed consent and without recording names.
3. **A comparison of state PDS models**, for example Tamil Nadu's universal system against targeted systems, in their effect on households' exposure to food inflation.

12. Conclusion

The same price rise costs every family the same rupees but not the same life. In the simulation, a 20 per cent rise in the prices of essentials deepens the low-income family's daily shortfall from Rs 25 to Rs 90 and leaves it about Rs 36,000 in debt within a year; it removes 37 per cent of the middle-income family's spare money, 10 per cent of the upper-middle-income family's and 4 per cent of the high-income family's.

India's achievement should not be understated. A country that suffered the Bengal famine of 1943 (Sen, 1981) and depended on imported food aid in the 1960s now feeds a population of about 1.45 billion and is among the world's largest rice exporters, and no major famine has occurred since independence (Sen, 1999). The task now is to move from food security to nutrition security and price security: to protect poor and middle-class families not only from hunger but from the rising prices of vegetables, pulses, milk, medicines and transport.

Good policies already exist. The gap lies between policy intent and delivery: grain that is unfit to eat, protection that stops at cereals, wages that trail prices, and enforcement that is slow. Economics has been called the queen of the social sciences, and inflation is one of its central questions. If inflation is managed well, and its burden is shared fairly, the nation will move steadily along the path of growth.

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Declarations

Nature of the study. This is an illustrative simulation and policy analysis. All household figures are hypothetical and are stated as assumptions in Section 4.

Data and code availability. The Python program that produces every figure and table is available from the author on request.

Use of AI tools. The author used AI assistants (Claude, by Anthropic) to help structure the argument, run the simulation, draw the figures and edit the English text. The ideas, field observations and conclusions are the author's, and the author takes full responsibility for the content.

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