#### Duflo, E. & Banerjee, A. (2008). "The Economic Lives of the Poor". Journal of Economic Perspectives

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## Sumário

- O artigo busca caracterizar as condições de vida dos mais pobres utilizando microdados de diversos países em desenvolvimento...
- Enfatiza 5 aspectos:
  - Consumo
  - Fontes de renda
  - Acesso a mercados relevantes
  - Acesso a infraestrutura
- Apresenta questões que estão em aberto....

#### Survey article

- Uses household survey data from 13 countries:
  - Cote d'Ivoire, Guatemala, India (Udaipur 100 villages, and Hyderabad 2000 urban slum HHs), Indonesia, Mexico, Nicaragua, Pakistan, Panama, Papua New Guinea, Peru, South Africa, Tanzania, and Timor Leste
    - Data from the LSMS of the World Bank and FLS of the Rand Corp. Also, 2 J-PAL in-house surveys from India.
- To look at the lives of the:
- the <u>Extremely Poor (EP)</u>: consumption <\$1.08 per day per capita in '93 PPP), and the
- <u>Poor</u>: consumption <\$2.16 per day per capita in '93 PPP)

#### consumption

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What and how do poor families consume?

#### Demographics

- Larger family size: 6-12 members (median~7-8) [vs. 2.5 in the US]
- No. of adults per HH (age >18y): 2.5 5 (median 3)
  - More than just 'husband and wife' other adults co-habit like parents, siblings, uncles, cousins, etc.
  - Why? Helps to spread the fixed costs of living (housing, etc.) over a larger number of ppl
- Large number of children: ratio of HH<18y to HH>51y is 3-9 in rural (median 6) and 2-11 in urban (median 6) [vs. 1 in the US]
  - Why? High fertility and low life expectancy (high mortality of older adults)
  - Ratio of HH>51y to 'prime-age' adults (21-50y) ~0.2-0.3 [vs. 0.6 in the US]

# EP HHs do face a range of choices around consumption

	% of budget (R)	% of budget (U)
FOOD	56-78%	56-74%
Sugar, salt and other processed foods	10% (Udaipur)	
Cooking oil	6% (Udaipur)	
NON-FOOD		
Alcohol & Tobacco	4.1-8.1%	
Festivals	10% of annual budget	
Other forms of ent (movies, theatre, video shows)	<1%	
DURABLES	%	
Radio ownership among extremely poor HHs	11-70% in diff locations	
TV ownership among extremely poor HHs	0-33+% in diff locations	38-60% in diff locations

#### **Food consumption** EP HHs do not spend more on buying calories, even though they

- EP HHs do not spend more on buying calories, even though they can afford to (upto 30% more)
  - Poor and Extremely Poor seem to spend about the same on food
  - Deaton and Subramanian ('96) a 1% ↑ in overall exp translates to only 0.67% ↑ in total food exp of HH.
- EP do not optimize on buying edibles with the greatest nutrition per rupee, i.e. calories per rupee.
  - Also spend on buying rice and wheat, more expensive per calorie
  - Spend almost 7% of budget on sugar more expensive than grains as a source of calories + no other nutritional value
  - For every 1% ↑ in food exp, ~half goes towards buying more calories, and the other half towards buying more expensive (and tastier) calories.
- Share of food exp in budget is falling over the years for the EP (70% in 1983 → 62% in 1999-00, India) Poor consuming fewer calories over time

## **Ownership of Consumer Durables**

- Radios, televisions, bicycles
  - varies significantly from country to country
  - Low in many countries due to infrastructure constraints (electricity)
  - Bicycles <14% again, great variation
- Steep income gradient in ownership of radios and TVs
  - $\circ$  14% (EP) → 45% (Poor) in Cote D'Ivoire
  - Why? Expensive and lumpy purchase need to save up or borrow
  - So, lack of durable goods a possible marker for poverty measurement (within countries) – good way of distinguishing between EP and Poor

# Ownership of Productive Assets Land is major asset

- Great variations in ownership across countries
- 4% of EP own land in Mexico vs. 85% in Panama, and 99% in Udaipur sample
- When EP own land, plots tend to be very small
  - Median landholding <3 hectares
- EP HHs own very few other assets
  - Udaipur data Most have a bed or cot; only 10% have a chair or a stool; 5% have a table; 50% have a clock or watch; <1% has an electric fan, a sewing machine, motor vehicle, tractor. No phones.
  - Despite the fact that most EP HHs own/ run businesses, have few productive assets

## Pursuit of physical health

- Those in the EP category consume ~<1400 calories a day
  - This is half the recommended level of consumption for a male with moderate activity, or an adult woman with heavy physical activity
- Among the EP
  - Only 57% report that HH members had enough to eat throughout the year
  - 11-46% report having a member being either bedridden for the day or requiring a doctor in past month
- Among the Poor in Udaipur
  - Average BMI = 17.8 (normal supposed to be 18.5).
  - 65% of adult men and 40% of adult women found underweight
  - 55% anemic
  - 72% report at least one symptom of disease, & 46% report an illness that left them bedridden/ necessitated doctor visit in past month
  - Diarrhea v common among children
  - 1/7<sup>th</sup> have vision problems

#### Mental well-being

- Self-reported happiness or health levels not particularly low
- But poor report high levels of stress financial and psychological
  - 12% of Udaipur sample reported a month or so in the past year of feeling so 'worried, tense or anxious' that it interfered with normal activities
  - Reported stress levels from South Africa and Udaipur similar, and much higher compared to US figures
- Most frequently cited reason for stress:
  - Health problems (29%)
  - Lack of food (13%); death (13%)
- Cutting meals strongly correlated with reported unhappiness
  - Over past yr, in 45% of EP HHs, adults had to cut the size of their meal; in 12% - children had to cut the size of their meals.

#### **Investment in education**

- Enrolment of children in school is high at least 50% of both boys and girls aged 7-12 in 12 of 13 countries in sample, are enrolled
- EP spend very little on education (~2% of HH budget)
  Why? Children in poor HHs attend govt schools that charge no fees
  - But quality of schooling is low
  - Some evidence that poor parents in Pak are pulling children out of govt school and paying more to send them to pvt schools.

#### Income generation

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How do the poor earn money?

#### Large share work as entrepreneurs

- Substantial fraction of the poor work as entrepreneurs
  - Raise the capital, carry out the investment, and are the full residual claimants for the earnings
  - 47%+ of the urban Poor operate a non-farm business
  - 25-98% of the rural EP report being self-employed in agric; 7-36% of the rural Poor also run a non-farm business

## Involved in multiple occupations

- 21% of urban Poor in Hyd have more than 1 business; 13% have a business and a labourer's job
- Upto 47% of urban Poor get income from >1 source
- Pattern of multiple occupations stronger in rural areas
  - Poor cultivate own land no more no less. Yet agric not main source of income.
  - Also work as daily labourers 94% of EP report doing this; 74% claim this as the main source of income.
- In rural West Bengal, even HHs with a plot of land, spend only 40% of their time in agric activities on their own land
  - Women do less direct agric work, more animal rearing, growing fruits and vegetables.
  - Women's other activities include teaching, sewing and embroidery, unpaid HH work, gathering fuel (almost 10% of the time of the average HH is spent gathering fuel for consumption or sale)
- Median family has 3 working members and 7 occupations

#### Temporary migration for work common

- Temporary migration major source of non-farm income for rural Poor
  - 60% of rural EP HHs report that someone from the family had lived outside for some part of the year to obtain work
    - In 58% of the cases, the head of HH had migrated
    - Multiple trips per year
    - Median length of a completed migration is 1 month; only 10% of migration episodes exceed 3 months
    - Also don't migrate very far 28% stay within the district; only 42% leave the state.

# Permanent migration for work less

- Share of EP HHs who had one member born elsewhere and who had migrated for work reasons: 4% in Pak, 6% in Cote d'Ivoire & Nicaragua, 10% in Peru (41% in Indonesia, but migration subsidized)
- 1991 Census of India reports only 14.7% of the male population lives somewhere other than where they were born

### Lack of specialization

- Engaged in multiple occupations, at multiple locations, but do not pursue/ specialize in one
- In the labour market, specialized competence that takes a long time to acquire is associated with higher earnings
- But even non-farm businesses run by the poor do not hone specialized skills
  - Of the businesses in Hyd: 11% tailors, 8% fruit and veg sellers, 17% small general store owners, 6.6% telephone booth operators, 4.3% auto owners, 6.3% milk sellers.
- In many ways, poor trading off opportunities to have higher incomes for present consumption.

#### Problem of small-scale

- Very small landholdings; do not rent more agric land; seasonal cultivation (due to dependence on rain)
- Non-farm businesses also very small-scale
  - Median business of Poor (including EP) have close to no paid staff; operated by 1.4 – 2.6 people (mostly family members); few assets (only 20% of Hyd businesses operated out of a separate room); 40% own a vehicle of some kind in Pak, but almost all non-motorised; most common business assets are tables, scales and pushcarts.
- Small-scale usually means efficiency gains could be had through consolidation (pairing up for e.g.) and specialization

#### Access to markets

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What is the market environment in which the poor transact?

### Market for credit - 1

- Fraction of rural EP HHs having outstanding debt: 11% (East Timor), to 67% (Udaipur), to 93% (Pakistan)
- But very few of these loans from formal lending source
  - Udaipur: 23% from a relative, 18% from a moneylender, 37% from a shopkeeper, 6.4% from a commercial bank or cooperative
- Not about physical access
  - In urban area (Hyd): 52% of Poor HHs borrow from moneylenders, 24% from friends or neighbours, 13% from family members, and only 5% from commercial banks.
- Credit from informal sources expensive
  - Udaipur EP HHs pay on average 3.84% per month as interest
  - Poor HHs (\$1-\$2 p.c. per day) pay on average 3.13% per month
- Informal interest rate lower if own land
  - Drops by 0.4% per month for each additional hectare of land owned
  - So Urban Poor face even higher informal interest rates (3.94% per month) since no land that can be used as collateral

#### Market for credit - 2

- Frequent delays in payment very common, but actual default not very high
  - Default explains only 23% of the interest rate charged in informal credit markets in India (Dasgupta 1989)
  - Rate of default across rural moneylenders in Pak only 2%.
- But low default is not automatic; high contract enforcement costs
  - Little legal recourse for lenders; weak judicial institutions
  - Little a priori screening b/c poor own few assets to place as collateral
  - Small size of loans, so not clear that profits will cover costs of screening and monitoring
  - Hence, borrowing usually happens very locally where monitoring costs for lenders are lower
  - Cost of capital for remote, unregulated lenders is higher, and so this too gets passed on to poor borrowers

### Market for savings

- Difficult for Poor to find a safe place to save money and earn reasonable returns
  - Saving at home does not protect from inflation, needy relatives and friends, and the temptation to spend
- Few EP HHs have bank savings accounts
  - <14% in sample countries (except Cote d'Ivoire where 79%)</li>
  - Similar shares in urban and rural areas (except India where 6% in Udaipur vs. 25% in Hyd)
- So poor save informally
  - Savings clubs, chit funds, ROSCAs, and some with SHGs, credit unions, post office savings
  - Respond so well to microcredit b/c allows them to systematically put aside some money (post-purchase) towards a particular needed expense (by paying down the loan)
- Despite active promotion, share of Poor saving with semi-formal institutions (MFIs, SHGs) still low in India (10% in Udaipur and Hyd)

## Market for insurance - 1

- Very little access to insurance
  - Only 6% of EP covered by health insurance (exception Mexico where 50% of EP have coverage)
  - Life insurance more common in India: 4% of EP in Udaipur and 10% in Hyd.
  - Access to weather insurance very rare anywhere
  - Govts supposed to provide free healthcare to the poor; often illegally charge for services and medicines; poor quality care
  - Some govts also offer safety net 'Food for Work' programmes; 76% of poor in Udaipur had at least one member working in such a scheme (esp during drought years)

#### Access informal insurance through social networks

- Over 1 year, 75% of poor villagers in Nigeria had made loans, 65% had borrowed money, and 50% had been both borrowers and lenders – all among friends and neighbours (Udry 1990)
- Similar protection through jati/ sub-caste networks in India (Rosenzweig and Munshi 2005)

MARKETS 5

#### Market for insurance - 2

- Informal insurance provides only limited protection
  - Ultimately relies on willingness of the fortunate to take case of the less favoured
  - Also not well-diversified; tend to be local and spread risk over HHs with similar incomes and occupations
- Poor HH consumption strongly affected by variations in income
- Also bear health-related risks directly (expenditures and foregone earnings); decline in the health index of the HH head associated with decline in HH's non-medical expenditures; fund large medical expenses through borrowing (24% in Hyd)
- Often only form of insurance is eating less or taking children out of school (esp when have access to no other assets, e.g. land to weather the crisis); also less likely to seek medical treatment during bad times
- Lack of insurance also leads poor to under-invest in risky, but profitable, technologies

## For historical reasons, land tends to be the one asset the Poor own

- But land records often incomplete; many Poor HHs do not have the titles to their land
  - This means it is harder to sell or mortgage the land  $\bigcirc$
  - Also means, often the Poor own land that has been recently encroached upon  $\bigcirc$ (typically land where tilling is incomplete); so spent a lot of time protecting their claims to the land
  - With missing land titles, political influence starts to matter more. So if your land  $\bigcirc$ will not be protected by political clout, you will not leave your land fallow for long enough (necessary to increase its productivity)
- Being agents rather than owners of land gives little incentive to poor farmers to raise productivity
  - E.g. tenancy reform that forced landlords to give sharecroppers a higher share of the output + a secure right to the land, raised productivity by 50% (Banerjee, Gertler and Ghatak, 2002)

What infrastructure and services do the poor use?

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#### Access to QUALITY Infrastructure

## Access to physical infrastructure

- Includes both public goods and services that can be purchase piecemeal by individuals
- Huge variation in availability of physical infrastructure to the rural Poor:
  - Tap water: 0 (Udaipur)  $\rightarrow$  36% (Guatemala)
  - Electricity: 1.3% (Tanzania)  $\rightarrow$  99% (Mexico)
  - Latrine: 0 (Udaipur)  $\rightarrow$  100% (Nicaragua)
- Different kinds of infrastructure do not always appear together
  - E.g. In Indonesia: 97% of rural EP have electricity, but only 6% have tap water
- Govt effectiveness in delivering these services in many countries very low (Share of rural EP with tap water or electricity <5% in Udaipur, Papua New Guinea, East Timor and South Africa)
- Access to tap water and electricity usually better for urban vs. rural poor; usually better for Poor compared to EP HHs

#### Education and healthcare services - 1

- Some attempt made to expand access in these areas.
  - E.g. Most Indian villages have a school within a kilometre & a health sub-centre for every 10,000 people
- However, quality of services very low
  - Very high absenteeism by teachers (19%) and health workers (35%)
  - Competence of providers usually low: e.g. in Delhi, every neighbourhood lies within 15 min from ~70 healthcare providers; but variation in competence between those who treat rich vs. poor patients tremendous; treatments suggested by average provider more likely to do harm due to misdiagnosis and overmedication (Das and Hammer, 2004)

#### Education and healthcare services - 2

- Poor healthcare and sanitation directly affect mortality:
  - Among the rural EP, infant mortality 3.4% in Indonesia → 8.7% in South Africa and Tanzania → 10% in Udaipur → 16.7% in Pakistan
  - Very large difference between survival chances of poor children in different countries; correlated with health spending per capita
- Low quality of teaching in public schools affects learning
  - In India, though 93.4% of children aged 6-14 are enrolled in schools (75% in govt schools), 35% of children aged 7-14 cannot read a simple paragraph at class 2 level; 41% cannot do subtraction; 66% cannot do division (Pratham 2005).
  - Even among children in class 6-8, 22% cannot read a class 2 text

#### Education and healthcare services - 3

- Private players have stepped in where the public provision of education and health services is particularly low
  - But in rural private schools, though teacher absenteeism is lower in pvt schools, teachers are less qualified
- Where the public healthcare system has high absenteeism, people go to private clinics
  - E.g. In India, where absence of govt healthcare providers is 40%, 58% of the EP HHs have visited a private health provider in the last month



What are some of the questions around strategies to improve the economic lives of the poor?

#### Why don't the poor eat more/ better?

- 30% slack in budget for greater food purchase or saving why then periods of hunger? Why no improvement in quality of food consumed?
  - Eating more or eating better does not help much (in incidence of sickness or productivity)? E.g. nutrition explains only a very small part of health gains worldwide over the past few decades. But some improvements in nutrition (reduction of anemia) directly linked to increased productivity.
  - Lack of saving for difficult times (no self-control around current consumption of non-food) does not fully explain this finding – because poor HHs do spend on entertainment, even save up for events, gadgets, etc.
  - The need to spend surplus on entertainment rather than on more/ better food is it because the poor want to keep up with their neighbours?\*

#### Why don't the poor expand cultivation?

- Rural poor cultivate the land they own no more no less – why?
  - Agency problems associated with renting out land?
  - Even though too little land relative to available family labour, still don't purchase land (lack of access to credit)
  - Few options to insure against risk so get a second, temporary, non-agric job, while still holding onto some minimal farm production

#### Why so little specialization?

- Risk spreading very difficult, so cannot put all eggs in one basket; hence, shuttling between agric and nonagric jobs
- Occupations (farming) tend to leave periods of time vacant ; hence pursue other jobs
- Also cannot raise the capital needed to expand business/ specialize in one occupation

#### Why so many entrepreneurs?

- Few specialized vocational skills, little capital, rigidities in local labour market (e.g. if you are a woman), so being a small-scale entrepreneur easier than finding a job
- Due to riskiness of borrowing for expansion, limit business to own/ family labour (do not employ others) – reinforces lack of jobs, and proliferation of other smallscale entrepreneurs

# Why don't the Poor invest more in Education?

- Children are going to govt primary school but parents aren't reacting to the poor quality by shifting children to pvt/ better schools or putting pressure on the govt to improve quality. Why?
  - Poor parents, often illiterate themselves, may have a hard time recognising that their children are not learning much
  - Not sure if they can trust pvt schools, especially since teachers there seem to have lower qualifications
  - Unclear on how best to organise to reform govt school quality

### Why don't the Poor save more?

- Why don't the poor show more evidence of accumulation for the future, by cutting non-food expenditure (alcohol, tobacco)?
  - Saving at home is hard (live in non-lockable houses, need to share with relatives/ friends who ask for funds)
  - Have to battle temptation to spend surplus that is in-hand (small expenses that the rich may take for granted – e.g. chocolate for children)
  - Poor appear to be aware of temptations to spend: In Hyd survey, 28% mentioned at least one item they would like to cut (44% alcohol and tobacco; 9% sugar, tea and snacks; 7% on festivals; 7% on entertainment)

#### Why don't the Poor migrate for longer?

- Low levels of long-term migration among the poor – why?
  - Value being close to own social network, especially when that is the major source of informal insurance
  - Making money in better-paying locations is a priority, but not enough to endure poor working conditions and personal difficulty (living away from loved ones) for long periods



Looking beyond market failures and immediate consumption compulsions

#### Designing 'better-fit' programmes

- Study of fertilizer use in Kenya use of fertilizers increases yield by 75% on average; showed proof on trial plots with randomly selected farmers; but farmers who participated in the study only 10% more likely on average to use fertilizer in next season (despite recorded gains)
- When asked why, farmers replied that they had insufficient money but fertilizer could be purchased in small packets (with little savings)
- So introduced a programme to sell fertilizer vouchers just after harvest, when farmers had money in hand – uptake of fertilizer increased dramatically (40% purchased)
- Used the voucher as a commitment device farmers did not then exchange it for other items for immediate consumption, but instead stored and used fertilizer on land in a few months' time

A key finding of this article is around the high discount rate of poor households, which prevents the accumulation of small surpluses (saving) during good times, towards future consumption during crises.

The poor quality of infrastructure including sanitation, healthcare and education services accessed by the poor, prevents prolonged investment and specialization in any one occupation, which could fetch higher wages.

As a result, being involved in multiple, low-paying occupations (including one or more small informal enterprises) across locations, is common among the Poor.

Low ownership of physical assets to access cheap capital, and high aversion to risk given the lack of a strong financial safety net, prevent investments to expand own business (farm or non-farm) beyond a very small-scale of operations.

Hence the low incomes persist.