

Infrastructure Economics
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Module – 04
Lecture - 15
Education as a Social Infrastructure
A Case Study of Mid-Day Meal Scheme

In this module, I am presenting a case study of Mid-day Meal Scheme in India in which we are going to discuss how government of India's one of the policy has the impact on the education and how this particular scheme has created education as a social infrastructure in India. Let me begin with the brief outline: we will first present the economic impact of education at micro-level and macro-level with two different equations. And then, we will try to link those theoretical assumptions with the Mid-Day Meal Scheme in India.

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Microeconomic Impact of Education

In the simplest form, the return on education (r) can be estimated as:

$$r = \frac{Y_1 - Y_0}{S [Y_0 + C_1]}$$

Where,

Y₁ and Y₀ = mean earnings of workers who are literate and illiterate respectively

S = no. of years of schooling

C₁ = annual cost of keeping someone in school

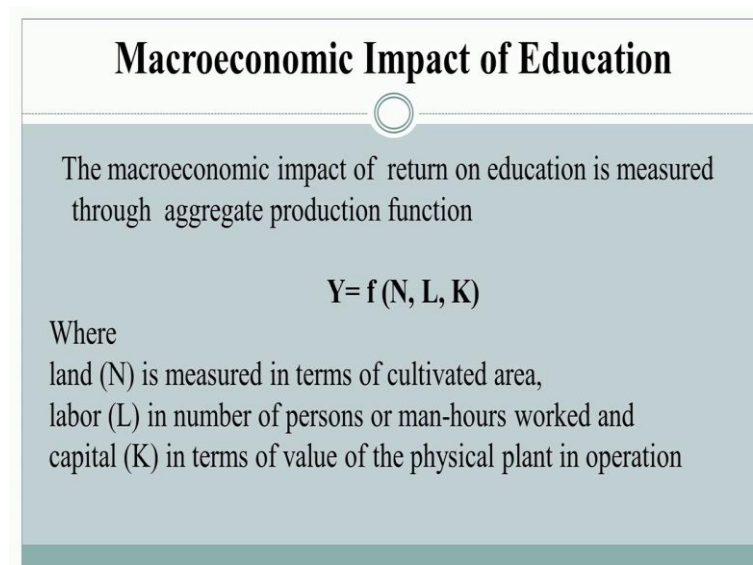
Y₀ = opportunity cost of attending school rather than working in the labour market (in the denominator)

Theoretically, if we have to see the macroeconomic impact of education in a very simplest form, the return on education r can be estimated as $r = \frac{Y_1 - Y_0}{S [Y_0 + C_1]}$

, where the Y₁ and Y₀ is equal to the mean earnings of workers, who are literate and illiterate respectively. S is the number of years of schooling, C₁ is the annual cost of keeping someone in the school and Y₀ is the opportunity cost of attending schools rather than working in the labor market.

So, here one can see that at the individual level there are certain returns of education and it is well understood that if the education level is poor, if the worker is really uneducated, not been to the schools, their basically earnings... workers' earnings is really get affected. At macro level we can also see here in a different equation where the Y is the function of N, L, and K, where N is the cultivated area of land, where the L is the number of persons or working hours of the worker, the capital (K) in terms of value of physical plant in the operation.

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Macroeconomic Impact of Education

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The macroeconomic impact of return on education is measured through aggregate production function

$$Y = f(N, L, K)$$

Where
land (N) is measured in terms of cultivated area,
labor (L) in number of persons or man-hours worked and
capital (K) in terms of value of the physical plant in operation

So, here one can see that how a number of persons or man hours work is really related with how skilled and educated population is available in the economy. And in case of newly industrialized countries we have seen that how education has made certain impact on the employment extended and the working extended of the people in some economy.


And there is a direct impact of such skilled work force on the national output, which is Y in this particular equation. In case of educational infrastructure even if at... even if we are looking at the primary level, the optimum number of the class rooms are required, proper students teachers ratio is required, construction and maintenance of educational institutions is very imperative, adequate sanitary facilities for boys and girls is also important as the government of India has recently announced that every school will have the separate toilet facility for the girls.

And power and computer facilities with internet is being one of the necessity today. Not really achievable in a very shortest span of time, but it will take really some more time to

achieve certain targets. Again a basic library and certain labs are also required as a part of the educational infrastructure. Let me begin the cases study of mid-day meal scheme in India. On 15th August, 1995 the national program of nutritional support to primary education was launched as a centrally sponsored scheme by the government of India.

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Mid Day Meal Scheme in India


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Mid Day Meal Scheme

- On 15th August 1995, The National Programme of Nutritional Support to Primary Education (NP-NSPE) was launched as a Centrally Sponsored Scheme
- Its coverage was 2408 blocks initially
- By the year 1997-98 the NP-NSPE was introduced in all blocks of the country

And which has the coverage of 2408 blocks initially. But by the year 1997-98 it was introduced to the all blocks of the country.

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Extended Mid Day Meal Scheme

- It was further extended in 2002 to cover not only children in classes I-V of Government, Government aided and local body schools, but also children studying in EGS and AIE centres
- In September 2004 the scheme was revised to provide cooked mid day meal with 300 calories and 8-12 grams of protein to all children studying in classes I-V in Government and aided schools and EGS/ AIE centres

It was further extended in 2002 to cover not only children in class 1 to 5 of government, government-aided, and local bodies' schools, but also children's studying in other

educational institutions, private sectors. In September 2004, the scheme was revised to provide cooked mid-day meal with 300 calories and 8 to 12 grams of protein to all children studying in class 1 to 5 in government aided school and EGS and AIE centers.

What was basic objective of this mid day meal scheme? The first objective was to increase the enrollment of the students to really stop the dropouts in the schools, provide the nutritional support to the children.

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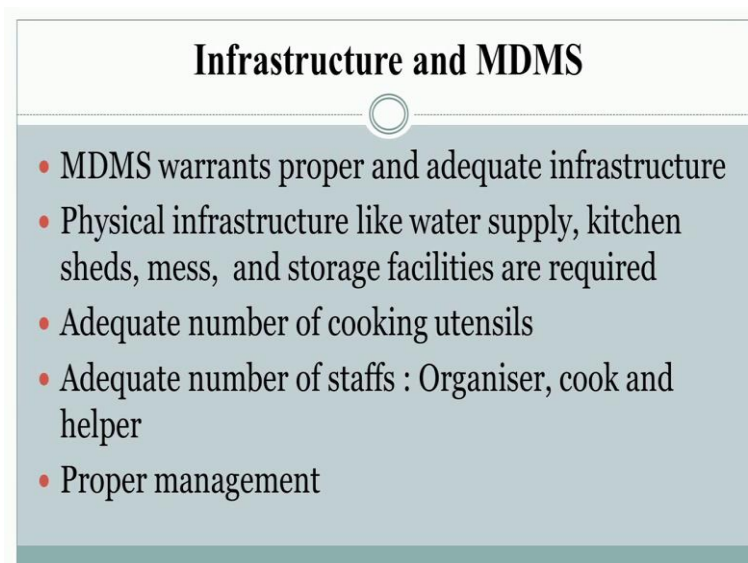


Objectives of Mid Day Meal Scheme

- Increase the enrolment of students
- Check the drop-outs
- Provide nutritional support to children
- Ensure social empowerment of all the sections of the society
- Public welfare

Ensure the social environment empowerment of all the sections of the society and at the last, the larger public welfare.

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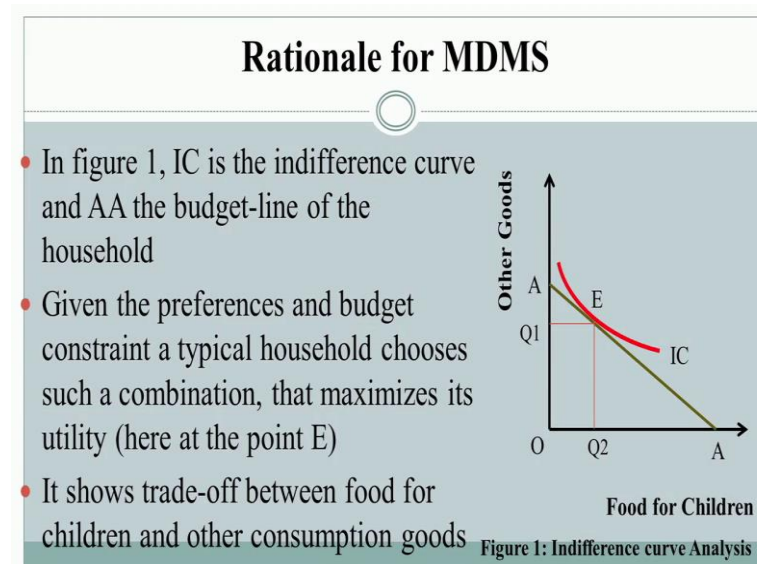
Infrastructure and MDMS

- MDMS warrants proper and adequate infrastructure
- Physical infrastructure like water supply, kitchen sheds, mess, and storage facilities are required
- Adequate number of cooking utensils
- Adequate number of staffs : Organiser, cook and helper
- Proper management

So, how infrastructure is again link with the mid-day meal schemes? Because mid-day meal schemes is providing the proper and adequate infrastructure: physical infrastructures like water supply, kitchen sheds, mess, and storage facilities, which is also required to provide the mid-day meal to the children; adequate number of cooking utensils, adequate number of staffs, organizers, cook and helper and proper management.

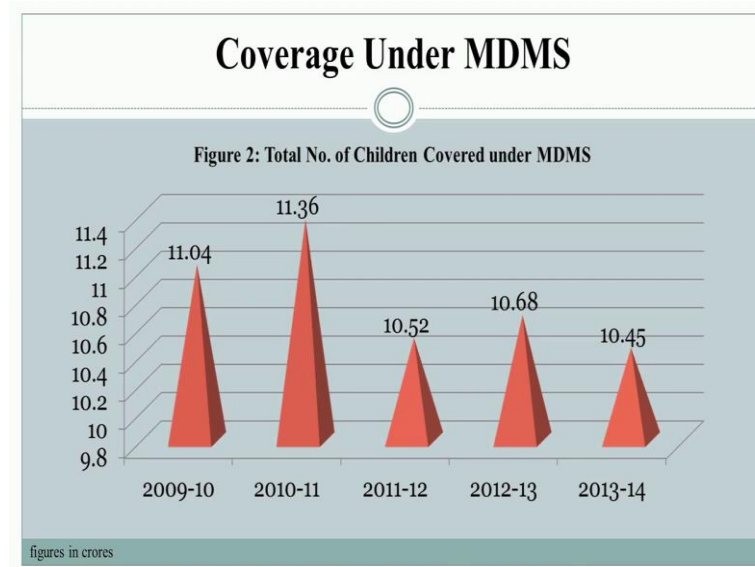
In this figure we can find out, basically the curve is the indifference curve, where an individual is supposed to get the maximum advantage, tangent to the budget line and where at the point of E, we are finding that out of two goods consumption food for children and on OX axis we have other consumer goods.

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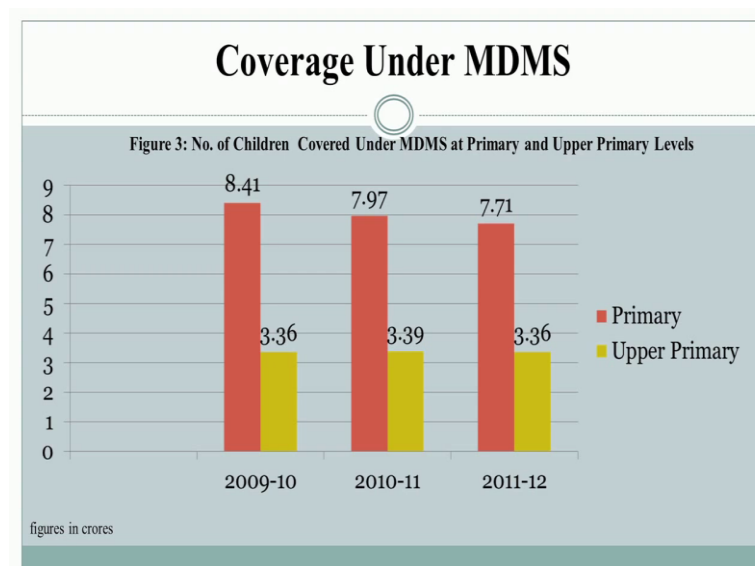
And we are finding that a consumer is typically having the condition of maximum utility derived at point E, where the indifference curve of that particular individual consumer is tangent to the budget line that is the AA. So, it shows the tradeoff between the food for children and other consumption goods. So, theoretically we can say that given a constant... a budget constant an individual is supposed to derive the maximum utility. And this particular mid-day meal scheme, which is providing food for the children, is certainly having utility games for the society.

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So, the coverage under mid-day meal schemes... total number of children covered under mid-day meal schemes in last three years is like that. All these figures are in crores. So, we have around 11 crore children covered under the Mid-Day Meal Schemes. Again 2010-11, 11-12, 12-13 and 13-14 shows that total number of children covered under Mid-Day Meal Schemes is above 10 crores. So, this shows that one of the most successful programs in India.

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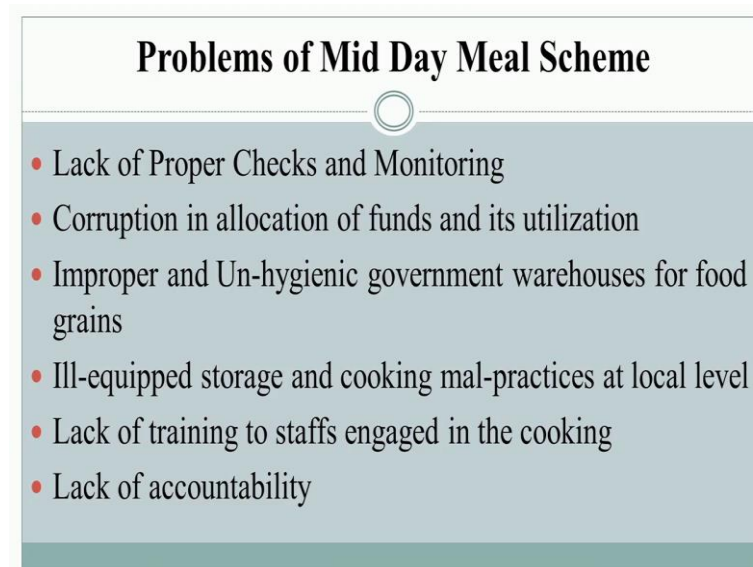


And the coverage under mid-day meal schemes... number of children covered under primary and upper primary levels is again shown here, while this program has covered large number of primary level of student in 2009-10 8.4 one crores, while at the primary

level 3.36 crores.

Again in 2010-11, 7.97 crores at the primary level and again 3.39 at the upper primary level. We have the similar data in 2011-12, where 7.71 crores students... children were covered in the primary stage while the upper primary level 3.36 crore children's were covered. So... but there are certain problems associated with the mid-day meal schemes and every day we are finding that there are there are certain issues related to mid-day meal schemes.

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Problems of Mid Day Meal Scheme

- Lack of Proper Checks and Monitoring
- Corruption in allocation of funds and its utilization
- Improper and Un-hygienic government warehouses for food grains
- Ill-equipped storage and cooking mal-practices at local level
- Lack of training to staffs engaged in the cooking
- Lack of accountability

News papers are covering varieties of news about the problem faced by the children in the mid-day meal scheme. Now, what are those problems? If one can see those problems, one of the problem is lack of proper checks and monitoring of the food supplied in this particular scheme. The second problem is the corruption in the location of funds and its utilization. Many critics do say that the program is very successful on paper but not very successful in the field.

But as a observer one can also find out across the country that mid-day meal scheme cannot be treated as one of the failure at the school level because it has somehow increased the enrollment rate in the schools, especially at the primary level. And the extended mid-day meal scheme has also covered large number of students in many part of this country.

So... but as far as corruption is involved there are huge corruption cases at the level of procurement and also at the level of distribution, because schools where the centers for

these schemes and Gram Panchayats and other local bodies were basically instructed to take care of these schemes. And due to the nexus of... nexus between the panchayat level and the municipal corporation level persons with the school administration. We are finding that there are certain areas where allocation of resources... funds is sometime not really utilized properly and sometime it is also seen that it is underutilized. The third major problem with this is scheme is the improper and unhygienic government warehouses for food grains and we do find out that due to this problem there are certain cases of hospitalization during the mid-day meal schemes for the children's, because if it is not properly stored... if the food grains are not properly stored and if it is not maintaining the hygienic conditions, where the foods are... where the food is being cooked then the students are facing many health problems and certain emergency conditions are also being seen at the school level. So, this ill-equipped storage and cooking malpractices at local level is another issue, because the people involved in producing those items, cooking the food are not really trained and some time they are not really accountable. And they are not really concerned about the... about providing those items in a very hygienic way.

So, that creates the problem for the entire mid-day meal schemes and there are lots of criticism of such schemes. And many states has constant problems noticed for running such a schemes. At the same time, the staffs are not really trained and they are not really trained for... cooking the food and that creates the problem. And they are also underpaid because a very small amount of... a small payment are being made to those workers who are basically working the food for the kids.

So, lack of accountability at the school level, at the local bodies' level, at the Panchayat level, at the municipal corporation level is also seen. Because it covered the large number of schools and large number of students are enrolled in school these days and maintaining hygienic food distribution is one of the basic challenge for any schools today. So, with this discussion we can find out that it is true that mid-day middle schemes are finding certain challenges but if you can see the statistics of... the statistics of the success of the mid day meal scheme we are finding that plus 10 crore population is being covered under this mid-day meal scheme... in different years. And that is basically a very positive news for the success of such schemes in India. Many developing country which has problems of dropout... huge dropout... least-developed countries, many African countries are really having a dropout problem today.

And when the dropout problem is consistence... consistently seen it is important to important to stop... stop such dropouts through certain proactive steps as these steps are being taken in India by the central government. But at the same time when we are doing this, when we are really working on a policy at a very large level, one thing is the funding because this is one of the social infrastructure, which is going to help us in the long run. And at the same time, when we are funding these programs there is a leakage involved in least-developed and developed countries.

How to stop this leakage is another challenge for the social infrastructure development. So, this particular... this particular problem is not only the problem of one country, but this is the problem across the country and in that case one of the challenge for the social development... social infrastructure development is the corruption involved and accountability involved in providing such facility.

So, while taking education or health or other social infrastructure as one of the prime responsibility of the government it cannot be ignored today that it is not the only responsibility of the government to provide certain facilities to the people. But it is also the responsibility of the public body, it is also responsibility the non-governmental organizations and the other partners such as parents and the village people to really help the government, to really to support the government for financing such programs.

And even having certain success the different challenges, which we have discussed today as the part of the mid-day meal scheme is one of the eye-opener for many country and taking lessons for... from such schemes India and other developing country can really work upon providing education to all and as this is also one of the important agenda for right to education program. But right to education with the help of mid-day meal schemes and other physical infrastructure development programs will really solve the major purpose of the providing education at the larger level in the society.

I hope with this discussion on education our next discussion on health will also gives us certain idea that how primary health and other health facilities is also one of the major social infrastructure to be build up and how a country can really break the deadlock in development through developing educational and health services in a very targeted way.

Thank you.