UNIT 9
SOCIAL COST BENEFIT ANALYSIS (SCBA)

1. SOCIAL COST BENEFIT ANALYSIS (SCBA)

Social Cost Benefit Analysis (SCBA) is an economic evaluation technique used to appraise projects from the viewpoint of the entire society or economy, rather than solely from the perspective of the investing organization. It involves systematically identifying, measuring, and valuing all costs and benefits—including those external effects (externalities) that do not appear in conventional financial accounts—to determine the net contribution of the project to national welfare.

SCBA is like calculating the "national profit" of a project. A company's appraisal only looks at its bank account. SCBA looks at everyone's account. If a new highway increases the company's profit (a financial benefit) but causes air pollution and noise for a nearby village (a social cost), SCBA must factor in the health costs and reduced quality of life in the village to get the true picture of national value.

2. RATIONALE FOR SCBA AND UNIDO APPROACH

SCBA is necessary because the market prices used in financial analysis are often distorted and do not reflect the true scarcity value or opportunity cost to society.

Reasons for Market Price Distortion:

1. **Taxes and Subsidies:** Taxes (like GST) inflate prices, while subsidies deflate them, meaning neither reflects the actual economic cost of production.
2. **Externalities:** Projects create costs (like pollution) or benefits (like improved infrastructure) for third parties that are not charged or paid for.
3. **Inflation/Deflation:** Price changes not related to resource scarcity.
4. **Monopolies:** Monopolists charge higher prices than competitive markets, leading to inefficient resource allocation.

To correct these distortions, SCBA uses **Shadow Prices** (or Accounting Prices), which represent the true social value of goods and services, factoring in externalities and removing financial transfers like taxes.

UNIDO Approach for SCBA (United Nations Industrial Development Organization)

The UNIDO approach is a standardized, detailed framework for calculating shadow prices and evaluating a project's net social benefit. It emphasizes the need to measure the project's impact on **national objectives**, primarily consumption and savings.

The analysis is performed in five key steps:

Step	Action	Focus of Adjustment
Step 1: Financial Analysis	Calculating the project's financial NPV at market (actual) prices.	Establishing the baseline profit/loss for the firm.

Step 2: Economic/Social Analysis	Converting costs and benefits to Shadow Prices. Removing taxes, subsidies, and externalities to arrive at the true economic value of inputs and outputs.	Correcting for market price distortions.
Step 3: Adjustment for Impact on Saving and Investment	Adjusting the consumption stream to reflect the social value of saving. Saving is often considered more valuable than immediate consumption for long-term growth.	Valuing future growth potential.
Step 4: Adjustment for Income Distribution	Adjusting cash flows to reflect society's preference for distributing income to the poor (equity goal). Costs/benefits accrued to lower-income groups are given higher weight.	Valuing social justice and equality.
Step 5: Adjustment for Merit and Demerit Goods	Directly valuing "merit goods" (e.g., healthcare, education) and "demerit goods" (e.g., alcohol, tobacco) where the social value differs significantly from the private market value.	Valuing specific social priorities.

3. MIRRLEES APPROACH (LITTLE-MIRRLEES METHOD)

The Little-Mirrlees (LM) Method or Mirrlees Approach (developed by Ian Little and James Mirrlees) is another influential approach to SCBA. Unlike the UNIDO method which uses consumption as its numéraire (unit of account), the LM method uses uncommitted social income at border prices (international prices). This assumes that the opportunity cost of resources to a developing country is best represented by the cost of buying or selling them on the international market.

- **Border Prices as Shadow Prices:** For any good that is *tradable* (imported or exported), its shadow price is set equal to its international price (CIF price for imports, FOB price for exports).
- **Standard Conversion Factor (SCF):** For non-tradable goods (e.g., land, electricity, local services) that cannot be directly priced at the border, the SCF is used as a proxy multiplier to adjust their market price into a shadow price.
- **Simplified Explanation:** The Mirrlees approach argues: If you need steel for a project, the true social cost isn't what the local monopoly charges; it's what it would cost the country to import that steel (or the revenue lost by exporting it). They use global prices as the benchmark for efficiency.

4. SCBA METHODS FOLLOWED BY FINANCIAL INSTITUTIONS

While organizations like the World Bank, Asian Development Bank, and large commercial banks do not typically conduct the full, rigorous UNIDO or Mirrlees five-step analysis for every project, they incorporate SCBA principles in several ways:

1. **Environmental and Social Safeguards (E&S):** This is the most common application. Institutions require projects to adhere to specific **E&S standards** to manage pollution, displacement, labour practices, and biodiversity. If these safeguards are not met, the project is rejected or financing is withheld.
2. **Sector-Specific Economic Analysis:** For large infrastructure, public-private partnership (PPP), and developmental projects, financial institutions often require a simplified **Economic Rate of Return (ERR)** alongside the Financial Rate of Return (FRR). The ERR is essentially a simple SCBA that includes the value of consumer surplus (user benefits) and excludes taxes/subsidies.
3. **Exclusion of Negative Externalities:** Financial models increasingly penalize projects associated with large negative externalities (e.g., coal plants) by using a **higher cost of capital (RADR)**, reflecting the higher social and reputational risk, even if the financial numbers look good initially.

5. PUBLIC SECTOR INVESTMENT IN INDIA

SCBA is most directly and crucially applied to Public Sector Investment in India. Public sector projects (like metro rail, dams, irrigation schemes, or public health initiatives) are typically undertaken not for profit maximization, but for the maximization of social welfare. Therefore, a full SCBA is essential to justify the expenditure of taxpayer money.

Application in India

1. **Justification of Public Projects:** Projects are justified based on their **Net Social Benefit (NSB)**, where benefits include user benefits (e.g., faster commute, flood control) and costs include externalities (e.g., displacement of people, loss of forest land).
2. **Planning Commission/NITI Aayog:** Historically, central planning bodies mandated SCBA for major public infrastructure and development schemes to ensure efficient resource allocation in alignment with Five-Year Plan objectives (now replaced by NITI Aayog's strategic planning).
3. **Shadow Pricing for Labour:** Since unemployment is a major concern, the social cost of using unskilled labour is often valued **lower** than its market wage. This is done to incentivize projects that generate significant employment, making job creation a social benefit.
4. **Distributional Weights:** SCBA helps decision-makers ensure that large infrastructure projects do not disproportionately burden the poor or marginalized communities while benefiting the wealthy, thereby addressing social equity goals.