

In **disaster management**, professionals such as **suppliers, emergency sales agents, aid fundraisers, and procurement officers** may be paid through **commission**. Calculations of **gross wage, income tax, and discounts** are also important for **budgeting, purchasing, and reporting**. Here's how these financial calculations are used with **realistic examples**:

◆ 1. Commission

◆ Use: Paying agents or fundraisers a percentage of the total value they collect or supply.

✓ Example:

A fundraiser secures **\$25,000 in donations** for disaster relief and earns a **10% commission**.

$$\text{Commission} = \frac{10}{100} \times 25,000 = \$2,500$$

→ The fundraiser earns **\$2,500** as commission.

◆ 2. Gross Wage (with Commission)

◆ Use: Total wage earned before deductions, including base pay and commission.

✓ Example:

A procurement officer earns a **base salary of \$3,000** and receives **\$1,200 commission**.

$$\text{Gross Wage} = 3000 + 1200 = \$4,200$$

→ Gross wage = **\$4,200**

◆ 3. Income Tax

◆ Use: Calculating the amount deducted from the gross wage before receiving net pay.

✓ Example:

A relief worker earns a **gross salary of \$4,200**.

Tax-free allowance = **\$500**

Taxable income = $4200 - 500 = 3700$

Income tax rate = **20%**

$$\text{Income tax} = \frac{20}{100} \times 3700 = \$740 \quad \text{Net income} = 4200 - 740 = \$3,460$$

→ The worker pays **\$740** in tax and receives **\$3,460** in hand.

◆ 4. Discount

◆ Use: Reducing cost when buying emergency supplies in bulk.

✓ Example:

A disaster response agency is buying 100 first-aid kits for \$30 each.

The supplier offers a 15% discount.

$$\text{Total before discount} = 100 \times 30 = \$3,000$$
$$\text{Discount} = \frac{15}{100} \times 3000 = \$450$$
$$\text{Final price} = 3000 - 450 = \$2,550$$

➡ The agency saves \$450 and pays \$2,550.

✓ Summary Table:

Concept	Formula	Example	Result
Commission	% × Total value	10% of \$25,000	\$2,500
Gross Wage	Base + Commission	\$3,000 + \$1,200	\$4,200
Income Tax	% of (Gross – Allowance)	20% of \$3,700	\$740
Discount	% of Original Price	15% of \$3,000	\$450

Importance in Disaster Management:

-  Ensures **accurate payroll** for commissioned field workers
-  Helps **control spending** through discounts
-  Allows **transparent reporting** of taxes and wages
-  Makes **procurement and fundraising** more efficient