

# ECONOMIC IMPACT OF MASS-SPECC COOPERATIVES: DIRECT, INDIRECT, AND INDUCED IMPACTS

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# OUTLINE

- Introduction
- Methodology of the Study
- Initial Results
- Summary

# INTRODUCTION

# Building a better world

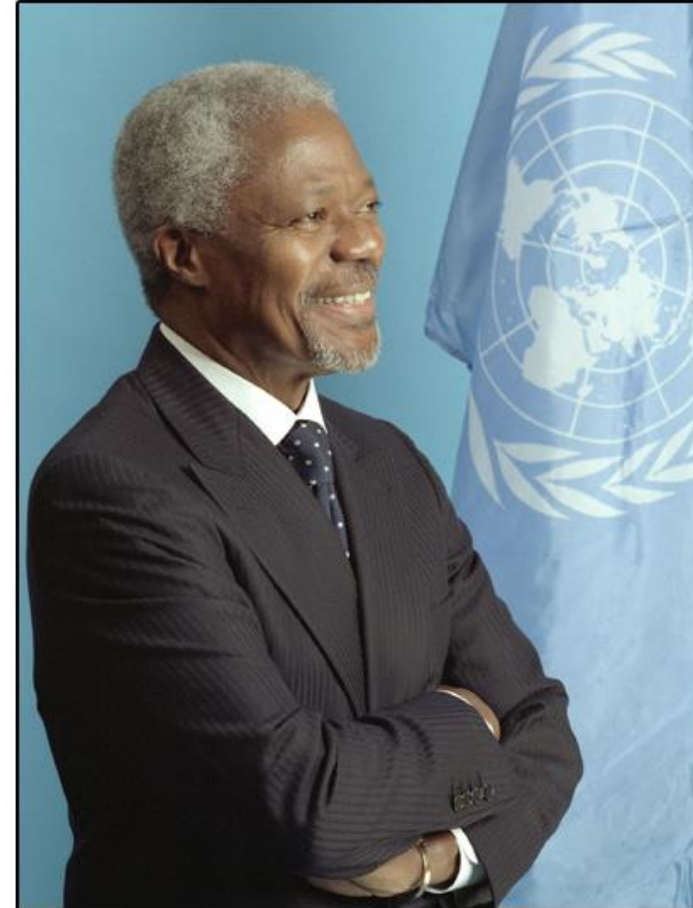
“Cooperative enterprises build a better world.”



# Paving the way to a more just and inclusive economic order

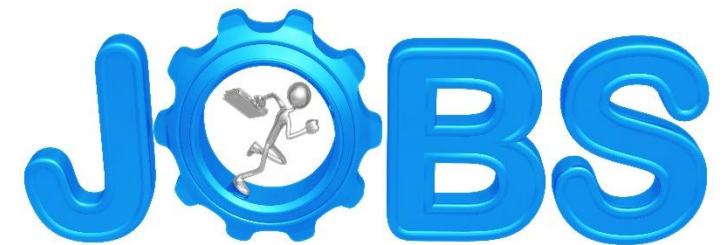
- **Kofi Anan**

“Founded on the principles of private initiative, entrepreneurship, and self-employment and underpinned by the values of democracy, equality, and solidarity, the cooperative movement can help pave the way to a more just and inclusive economic order.”



# Creating productive employment, overcoming poverty, and achieving social integration

**BOUTROS-BOUTROS GHALI: “ Cooperative enterprises provide the organizational means whereby a significant proportion of humanity is able to take into its own hands the tasks of creating productive employment, overcoming poverty, and achieving social integration.”**



# But how do we measure the economic impact of cooperatives?



**WHAT MEASURES OF IMPACT CAN WE USE?**

**WHAT ARE THE OUTPUT, INCOME, AND EMPLOYMENT MULTIPLIER EFFECTS OF MASS-SPECC COOPERATIVES?**

# METHODOLOGY OF THE STUDY



# Total Number of Participating Cooperatives and Survey Respondents

**ACTUAL NUMBER OF SURVEY RESPONDENTS  
(FOR ALL REGIONS OF MINDANAO)**

103 COOPERATIVES

103 MANAGERS

261 MEMBERS

364

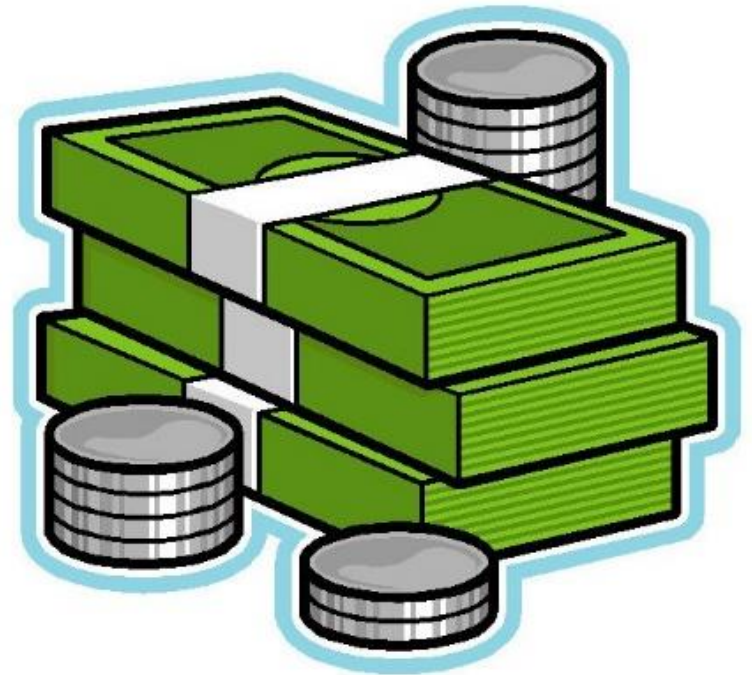
**TOTAL NUMBER OF RESPONDENTS**

# Principal Measures of Impact

- Revenue/ Sales
- Value of compensation (wages, salaries, and benefits)
- Value of payments to owners (dividends and patronage refunds)
- Employment

# Other Measures of Impact

- Total loans disbursed
- Total savings generated
- Total taxes paid

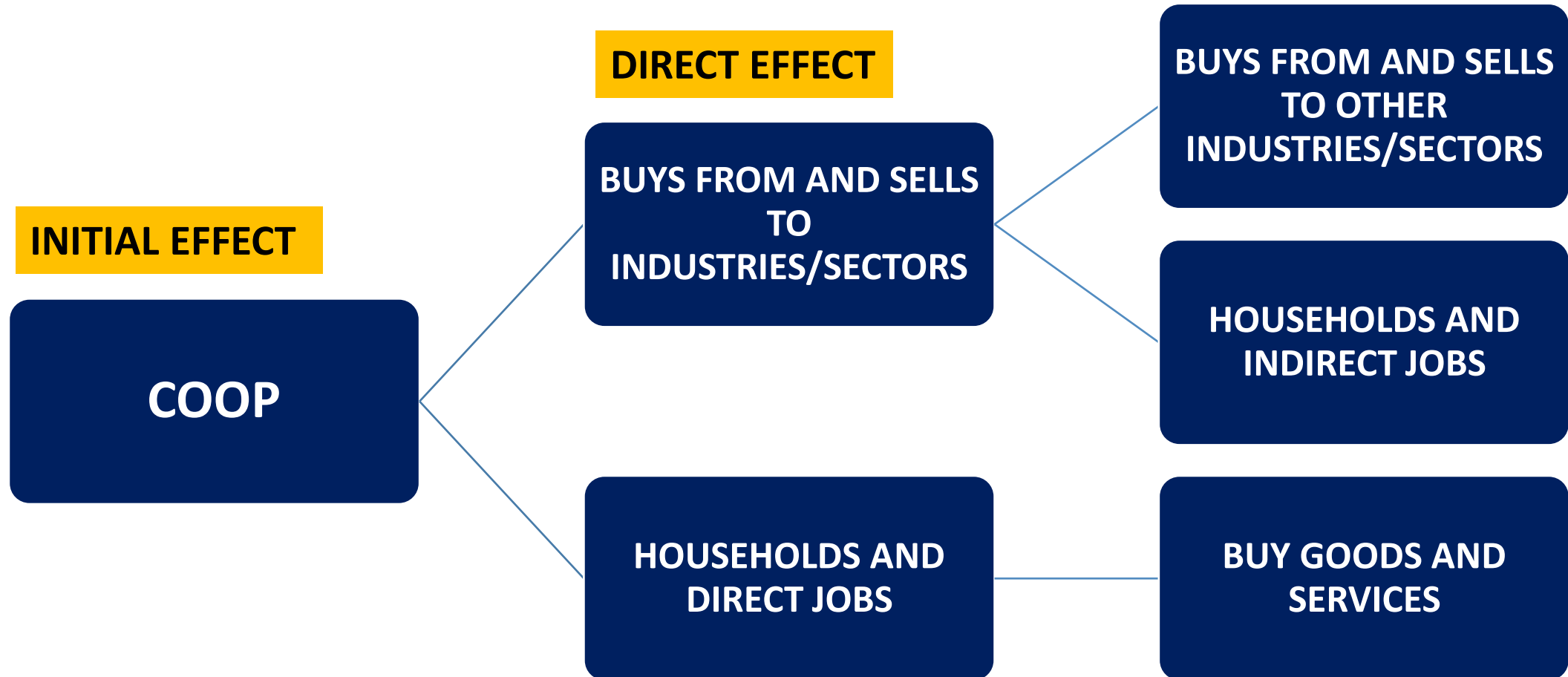


# Analytical tools and measured effects for each principal measure of impact

	MEASURED EFFECTS	ANALYTICAL TOOL
REVENUES/ SALES	INITIAL EFFECT	SURVEY
	MULTIPLIER EFFECT ON OUTPUT	NON-SURVEY REGIONAL INPUT-OUTPUT MULTIPLIER MATRIX
VALUE OF COMPENSATION	INDUCED OUTPUT MULTIPLIER EFFECT OF SPENDING	SURVEY; SIMPLE KEYNESIAN SPENDING MULTIPLIER
VALUE OF PAYMENTS TO OWNERS	INDUCED OUTPUT MULTIPLIER EFFECT OF SPENDING	SURVEY; SIMPLE KEYNESIAN SPENDING MULTIPLIER
EMPLOYMENT	NUMBER OF DIRECT JOBS	SURVEY
	NUMBER OF INDIRECT JOBS; CONTRIBUTION TO REDUCTION OF UNEMPLOYMENT	NON-SURVEY REGIONAL INPUT-OUTPUT MULTIPLIER MATRIX; STATISTICAL EXTRAPOLATION

# Concept of the Multiplier Effect

## INDIRECT AND INDUCED EFFECTS



**INITIAL RESULTS:  
Multiplier Effect of  
Revenues/Sales**

# Estimated gross sales/ revenues (Initial effect)

	<b>Credit Operations (in billion pesos)</b>	<b>Consumer Operations (in billion pesos)</b>	<b>Producer Operations (in billion pesos)</b>	<b>Total (in billion pesos)</b>
2014	6.21	0.93	1.50	8.64
2015	6.14	1.07	1.67	8.88
2016	7.56	1.48	1.48	10.52
<b>Total</b>	<b>19.91</b>	<b>3.48</b>	<b>4.65</b>	<b>28.04</b>
<b>Average</b>	<b>6.64</b>	<b>1.16</b>	<b>1.55</b>	<b>9.35</b>

# Estimated gross sales/ revenues (Output multipliers)

	<b>OUTPUT MULTIPLIER</b>	<b>INTERPRETATION</b>
<b>MASS-SPECC</b>	<b>1.44 - 1.68</b>	A one-peso increase in gross sales/revenues of MASS-SPECC cooperatives will create 1.44 to 1.68 pesos additional output.
<b>CREDIT/MULTI-PURPOSE</b>	<b>1.62 – 1.71</b>	A one-peso increase in gross sales/revenues of credit/MPC coops will create 1.62 to 1.71 pesos additional output.
<b>CONSUMER</b>	<b>1.49 – 1.57</b>	A one-peso increase in gross sales/ revenues of consumer coops will create 1.49 to 1.57 pesos additional output.
<b>PRODUCER</b>	<b>1.45 – 1.53</b>	A one-peso increase in gross sales/ revenues of producer coops will create 1.45 to 1.53 pesos additional output.



# Comparison of Output Multipliers

<b>SECTOR /INDUSTRY</b>	<b>OUTPUT MULTIPLIER</b>
Manufacturing	1.5
Private Business Services	1.47
Wholesale and Retail Trade	1.45
MASS-SPECC	1.44
Financial Intermediation	1.40
Agriculture	1.37

# Estimated gross sales/ revenues (Output multiplier effect)

	<b>Credit Operations (in billion pesos)</b>	<b>Consumer Operations (in billion pesos)</b>	<b>Producer Operations (in billion pesos)</b>	<b>Total MASS- SPECC (in billion pesos)</b>
2014	10.06 – 10.62	1.39 – 1.46	2.17 – 2.29	12.44 – 14.52
2015	9.95 – 10.50	1.59 – 1.68	2.42 – 2.56	12.79 – 14.92
2016	12.25 – 12.93	2.21 – 2.32	2.15 – 2.26	15.15 – 17.67
<b>Total</b>	<b>32.26 – 34.05</b>	<b>5.19 – 5.46</b>	<b>6.74 – 7.11</b>	<b>40.38 – 47.11</b>
<b>Average</b>	<b>10.75 – 11.35</b>	<b>1.73 – 1.82</b>	<b>2.25 – 2.37</b>	<b>13.46 – 15.70</b>

*Note: Includes initial, direct, and indirect effects*

# Average output multiplier effect as a proportion of the average GRDP of Mindanao

	<b>CREDIT</b>	<b>CONSUMER</b>	<b>PRODUCER</b>	<b>TOTAL MASS-SPECC</b>
AVERAGE OUTPUT MULTIPLIER EFFECT (2014-2016; IN BILLION PESOS)	<b>10.75 – 11.35</b>	<b>1.73 – 1.82</b>	<b>2.25 – 2.37</b>	<b>13.46 – 15.70</b>
PROPORTION TO AVERAGE GRDP OF MINDANAO (2014-2016; IN %)	<b>3.2 – 3.4</b>	<b>0.5</b>	<b>0.7</b>	<b>4.0 – 4.7</b>

**INITIAL RESULTS:  
Value of Compensation and  
Expenditure Pattern**

# Estimated Value of Compensation and Its Spending-Induced Output Multiplier Effect

	VALUE OF COMPENSATION (WAGES/SALARIES & BENEFITS, IN BILLION PESOS) (A)	DISPOSABLE INCOME (IN BILLION PESOS) (B)	ESTIMATE OF AMOUNT SPENT (C)	SIMPLE SPENDING MULTIPLIER (D)	SPENDING-INDUCED MULTIPLIER EFFECT (C x D)
2014	2.89	2.54	2.01	4.76	9.57
2015	2.48	2.18	1.72	4.76	8.19
2016	2.76	2.43	1.92	4.76	9.14
<b>TOTAL</b>	<b>8.13</b>	<b>7.15</b>	<b>5.65</b>	<b>4.76</b>	<b>26.89</b>
<b>AVERAGE</b>	<b>2.71</b>	<b>2.38</b>	<b>1.88</b>	<b>4.76</b>	<b>8.96</b>

# Average Monthly Disposable Income, Expenditure, and Savings

	<b>AMOUNT (in pesos)</b>	<b>REMARKS</b>
<b>AVERAGE MONTHLY DISPOSABLE INCOME</b>	<b>31,396.55</b>	
<b>AVERAGE MONTHLY EXPENDITURES</b>	<b>24,834.82</b>	<b>79% OF AVERAGE MONTHLY DISPOSABLE INCOME</b>
<b>AVERAGE MONTHLY SAVINGS</b>	<b>6,561.73</b>	<b>21% OF AVERAGE MONTHLY DISPOSABLE INCOME</b>

# Average Expenditure Pattern

	<b>SHARE IN MONTHLY EXPENDITURES (IN PERCENT)</b>
<b>FOOD</b>	<b>27.15</b>
<b>FUEL, LIGHT, WATER, TRANSPORTATION, AND COMMUNICATION</b>	<b>14.42</b>
<b>MISCELLANEOUS</b>	<b>10.92</b>
<b>EDUCATION</b>	<b>10.00</b>
<b>MEDICAL CARE</b>	<b>5.26</b>

# Average Expenditure Pattern

	<b>SHARE IN MONTHLY EXPENDITURES (IN PERCENT)</b>
<b>HOUSEHOLD MANAGEMENT</b>	<b>5.07</b>
<b>CLOTHING, FOOTWEAR, AND OTHER APPAREL</b>	<b>4.88</b>
<b>PERSONAL CARE, TOILETRIES, VANITY PRODUCTS</b>	<b>4.82</b>
<b>RECREATION/ LEISURE ACTIVITIES</b>	<b>3.41</b>
<b>HOUSE MAINTENANCE AND REPAIR</b>	<b>3.21</b>



# Average Expenditure Pattern

	<b>SHARE IN MONTHLY EXPENDITURES (IN PERCENT)</b>
<b>DURABLE FURNISHINGS</b>	<b>2.87</b>
<b>RENT/AMORTIZATION OF HOUSE</b>	<b>2.78</b>
<b>NON-DURABLE FURNISHINGS</b>	<b>1.735</b>
<b>REMITTANCES</b>	<b>1.51</b>
<b>ALCOHOLIC BEVERAGES</b>	<b>1.45</b>
<b>TOBACCO/CIGARETTES</b>	<b>0.49</b>

**INITIAL RESULTS:**

**Value of Payment to Owners**

# Estimated Value of Payments to Owners and Its Spending-Induced Output Multiplier Effect

	VALUE OF PAYMENTS TO OWNERS (DIVIDENDS AND PATRONAGE REFUNDS, IN BILLION PESOS) (A)	DISPOSABLE INCOME (IN BILLION PESOS) (B)	ESTIMATE OF AMOUNT SPENT (C)	SIMPLE SPENDING MULTIPLIER (D)	SPENDING-INDUCED MULTIPLIER EFFECT (C X D)
2014	1.03	0.91	0.72	4.76	3.43
2015	1.19	1.05	0.83	4.76	3.95
2016	1.29	1.14	0.90	4.76	4.28
<b>TOTAL</b>	<b>3.51</b>	<b>3.10</b>	<b>2.45</b>	<b>4.76</b>	<b>11.66</b>
<b>AVERAGE</b>	<b>1.17</b>	<b>1.03</b>	<b>0.81</b>	<b>4.76</b>	<b>3.86</b>

# INITIAL RESULTS: Employment

# Full-time and part-time employment (Direct jobs – MASS-SPECC)

	FULL-TIME	PART-TIME
2014	9,666	346
2015	10,463	419
2016	11,351	438
<b>AVERAGE</b>	<b>10,494</b>	<b>401</b>

# Employment multiplier effect

	<b>DIRECT EMPLOYMENT (DIRECT JOBS)</b>	<b>INDIRECT EMPLOYMENT (INDIRECT JOBS)</b>	<b>TOTAL MULTIPLIER EFFECT (MASS-SPECC)</b>
<b>2014</b>	<b>10,012</b>	<b>9,071 – 12,261</b>	<b>19,083 – 22,273</b>
<b>2015</b>	<b>10,882</b>	<b>8,737 – 12,005</b>	<b>19,619 – 22,887</b>
<b>2016</b>	<b>11,789</b>	<b>11,451 – 15,316</b>	<b>23,240 – 27,105</b>
<b>AVERAGE</b>	<b>10,895</b>	<b>9,753 – 13,194</b>	<b>20,648 – 24,089</b>

## Estimated average MASS-SPECC total employment as a proportion of total unemployment in Mindanao

- Average total full-time and part-time (**DIRECT**) jobs of MASS-SPECC from 2014 to 2016 is **10,895**.
- Without these jobs, the total number of unemployed persons in Mindanao would increase by **2.45%**.
- Hence, MASS-SPECC has helped reduce the total number of unemployed persons in Mindanao by **2.45%**.

## Estimated MASS-SPECC average total employment multiplier effect as a proportion of total unemployment in Mindanao

- Average total employment multiplier effect (**DIRECT and INDIRECT JOBS**) of MASS-SPECC from 2014 to 2016 is **20,648 to 24,089** .
- Without these direct and indirect jobs, the total number of unemployed persons in Mindanao would increase by **4.64 to 5.41%**.
- Hence, the average total employment multiplier effect of MASS-SPECC has helped reduce the total number of unemployed persons in Mindanao by **4.64 to 5.41%**.



**INITIAL RESULTS:**

**Total loans disbursed**

# Total Loans Disbursed

	<b>AMOUNT (IN BILLION PESOS)</b>
2014	35.70 - 39.46
2015	38.72 - 42.80
2016	45.15 - 49.91
<b>TOTAL</b>	<b>119.57 – 132.17</b>
<b>AVERAGE</b>	<b>39.86 – 44.06</b>

# Total Providential Loans

	<b>AMOUNT (IN BILLION PESOS)</b>
2014	10.56 - 11.68
2015	9.92 - 10.96
2016	10.88 - 12.02
<b>TOTAL</b>	<b>31.36 – 34.66</b>
<b>AVERAGE</b>	<b>10.45 – 11.55</b>

# Total Salary Loans

	<b>AMOUNT (IN BILLION PESOS)</b>
2014	3.60 - 3.98
2015	4.41 - 4.87
2016	5.36 - 5.92
<b>TOTAL</b>	<b>13.37 – 14.77</b>
<b>AVERAGE</b>	<b>4.46 – 4.92</b>

# Total Production Loans (Agriculture)

	<b>AMOUNT (IN BILLION PESOS)</b>
2014	3.01 – 3.33
2015	3.94 – 4.36
2016	4.38 – 4.84
<b>TOTAL</b>	<b>11.33 – 12.53</b>
<b>AVERAGE</b>	<b>3.78 – 4.18</b>

# Total Commercial Loans

	<b>AMOUNT (IN BILLION PESOS)</b>
2014	5.63 – 6.23
2015	6.71 – 7.41
2016	7.56 – 8.36
<b>TOTAL</b>	<b>19.90 – 22.00</b>
<b>AVERAGE</b>	<b>6.63 – 7.33</b>

# Total Other Loans

	<b>AMOUNT (IN MILLION PESOS)</b>
2014	186.26 – 205.86
2015	192.86 – 213.16
2016	213.59 - 236.07
<b>TOTAL</b>	<b>592.71 – 655.09</b>
<b>AVERAGE</b>	<b>197.57 – 218.36</b>

# Distribution of Loans

	<b>AVERAGE SHARE (2014-2106) (IN PERCENT)</b>
<b>PROVIDENTIAL</b>	<b>41.2</b>
<b>SALARY</b>	<b>17.3</b>
<b>PRODUCTION</b>	<b>14.7</b>
<b>COMMERCIAL</b>	<b>25.9</b>
<b>OTHER LOANS</b>	<b>0.9</b>



**INITIAL RESULTS:**

**Total savings generated**

# Total Savings Generated

	<b>AMOUNT (IN BILLION PESOS)</b>
2014	9.27 - 10.25
2015	14.13 - 15.61
2016	16.74 - 18.50
<b>TOTAL</b>	<b>40.14 – 44.36</b>
<b>AVERAGE</b>	<b>13.38 - 14.79</b>

**INITIAL RESULTS:**  
**Total taxes paid**

# Total Property Taxes Paid

	<b>AMOUNT (IN MILLION PESOS)</b>
2014	1.69 - 1.87
2015	1.68 – 1.86
2016	3.38 – 3.74
<b>TOTAL</b>	<b>6.75 – 7.47</b>
<b>AVERAGE</b>	<b>2.25 – 2.49</b>

# Total Payroll Taxes Paid

	<b>AMOUNT (IN MILLION PESOS)</b>
2014	36.12 – 39.92
2015	47.78 – 52.80
2016	56.50 – 62.44
<b>TOTAL</b>	<b>140.4 – 155.16</b>
<b>AVERAGE</b>	<b>46.8 – 51.72</b>

# Total Sales Taxes Paid

	<b>AMOUNT (IN MILLION PESOS)</b>
2014	0.19 – 0.22
2015	0.32 – 0.35
2016	1.43 – 1.59
<b>TOTAL</b>	<b>1.94 – 2.16</b>
<b>AVERAGE</b>	<b>0.65 – 0.72</b>

# SUMMARY

# Average output multiplier effect of gross sales/revenues: 2014-2016

	<b>AVERAGE INITIAL EFFECT (IN BILLION PESOS)</b>	<b>AVERAGE MULTIPLIER EFFECT (DIRECT AND INDIRECT, IN BILLION PESOS)</b>	<b>AVERAGE OUTPUT MULTIPLIER EFFECT (IN BILLION PESOS)</b>	<b>RELATIVE TO AVERAGE GRDP OF MINDANAO (2014 – 2016)</b>
<b>CREDIT</b>	6.64	4.42	<b>11.06</b>	<b>3.3%</b>
<b>CONSUMER</b>	1.16	0.62	<b>1.78</b>	<b>0.5%</b>
<b>PRODUCER</b>	1.55	0.76	<b>2.31</b>	<b>0.7%</b>
<b>MASS-SPECC</b>	<b>9.35</b>	<b>5.24</b>	<b>14.59</b>	<b>4.4%</b>

*Note: The direct and indirect multiplier effect is the average of the lower and upper range. The average output multiplier effect is the sum of the average initial effect and average multiplier effect.*



# Average spending-induced output multiplier effect: 2014-2016

	<b>AVERAGE SPENDING-INDUCED OUTPUT MULTIPLIER EFFECT (IN BILLION PESOS)</b>	<b>RELATIVE TO THE AVERAGE GRDP OF MINDANAO (2014-2016)</b>
<b>COMPENSATION</b>	<b>8.96</b>	<b>2.7%</b>
<b>DIVIDENDS AND PATRONAGE REFUNDS</b>	<b>3.86</b>	<b>1.2%</b>
<b>TOTAL</b>	<b>12.82</b>	<b>3.8%</b>

# Summary of the average output multiplier effect of MASS-SPECC cooperatives: 2014-2016

	<b>AVERAGE OUTPUT MULTIPLIER EFFECT (IN BILLION PESOS)</b>	<b>RELATIVE TO THE AVERAGE GRDP OF MINDANAO (2014-2016)</b>
<b>DUE TO GROSS SALES/ REVENUES</b>	<b>14.59</b>	<b>4.4%</b>
<b>DUE TO COMPENSATION/ DIVIDENDS AND PATRONAGE REFUNDS</b>	<b>12.82</b>	<b>3.8%</b>
<b>TOTAL</b>	<b>26.41</b>	<b>8.2%</b>

# Industries that will be benefitted by spending-induced multiplier effect of MASS-SPECC cooperatives

	<b>SHARE IN MONTHLY EXPENDITURES (IN PERCENT)</b>
<b>FOOD</b>	<b>27.15</b>
<b>FUEL, LIGHT, WATER, TRANSPORTATION, AND COMMUNICATION</b>	<b>14.42</b>
<b>MISCELLANEOUS</b>	<b>10.92</b>
<b>EDUCATION</b>	<b>10.00</b>
<b>MEDICAL CARE</b>	<b>5.26</b>

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## Estimated MASS-SPECC average total employment multiplier effect as a proportion of total unemployment in Mindanao

- Average total employment multiplier effect (**DIRECT and INDIRECT JOBS**) of MASS-SPECC from 2014 to 2016 is **20,648 to 24,089** .
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- Hence, the average total employment multiplier effect of MASS-SPECC has helped reduce the total number of unemployed persons in Mindanao by **4.64 to 5.41%**.

# Other sources of economic impact and multiplier effects

	<b>TOTAL AMOUNT (IN BILLION PESOS, 2014-2016)</b>	<b>AVERAGE (IN BILLION PESOS, 2014-2016)</b>
<b>LOANS DISBURSED</b>	<b>119.57 – 132.17</b>	<b>39.86 – 44.06</b>
<b>SAVINGS GENERATED</b>	<b>40.14 – 44.36</b>	<b>13.38 – 14.79</b>
<b>TAXES PAID</b>	<b>6.89 – 8.63</b>	<b>2.30 – 2.88</b>
<b>TOTAL</b>	<b>166.60 – 185.16</b>	<b>55.54 – 61.73</b>

