|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Table 1: Major Industries | | | Annual |
|  |  | 1951 | 1959 | Change |
| 1 | Agriculture | 40.7 | 79.1 | 11.79% |
| 2 | Mining | 19.6 | 29.8 | 6.51% |
| 3 | Manufacturing | 30.4 | 57 | 10.94% |
|  | Food Processing |  | 134 |  |
|  | Chemical |  | 17.3 |  |
|  | Engineering |  | 60 |  |
|  | Other manuf. |  | 57 |  |
|  | Fuel & power | 2 | 16.7 | 91.88% |
|  | Build. & Const. | 28.4 | 70.5 | 18.53% |
| 4 | Trans & Com. | 11.1 | 25.6 | 16.33% |
| 5 | Bank. &Ins. | 40.1 | 10 | -9.38% |
|  | Source: Tabulated from input tables | | |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Table 2: Source and Use of Funds: Plan 1954-1958 ($M Guyanese)** | | | | | | | |
|  |  | **Uses** | **Pct.** |  |  | **Sources** | **Pct.** |
| **Agriculture** | | 24.49 | 37.49% | **Government:** | |  |  |
| **Trans. & Comm.** | | 22.30 | 34.15% | **Revenues** |  | 30.5 | 46.21% |
| **Forestry** |  | 2.28 | 3.49% | **Loans not disbursed** | | 5.3 | 8.03% |
| **Social Welfare** |  | 7.45 | 11.41% | **Surplus** |  | 3 | 4.55% |
| **Public Works** | | 5.45 | 8.34% | **Repayments** | | 1 | 1.52% |
| **Ind. Credits** | | 1.50 | 2.30% | **Others Gov't** | | 2 | 3.03% |
| **Hydro. Power** | | 1.44 | 2.20% | **Grants:** |  | 11.1 | 16.82% |
| **Surveys** |  | 0.40 | 0.61% | **New Loans** | | 13.1 | 19.85% |
|  | **Total** | 65.31 | 100% |  |  | 66 | 100% |
| Source: Tabulated from Clark et al, 1953, pp. 30; 43 | | | | |  |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Table 3 : Tax Burden for 1962 Kaldor Tax Proposal** | | | | | |
|  | **Govt Tax** | **Build /** | **Rent &** |  |  |
| **Tax Types** | **Receipts** | **Const.** | **Dwelling** | **Household** | **Business** |
| Property | $1,000,000 | -300,000 | -700,000 |  |  |
| Saving | $6,000,000 | -500,000 |  | -4000000 | -1500000 |
| Evasion | $1,500,000 |  |  | -300000 | -1200000 |
| Imp.& Exc. | $6,000,000 | -100,000 | 0 | -2,000,000 | -3,900,000 |
| Sum | $14,500,000 | -900,000 | -700,000 | -6,300,000 | -6,600,000 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Table 4: Input-Output Forecast for Guyana’s 1962 Budget1959 (G$Million)** | | | | | | | |
|  | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
|  |  | **Gov Rev. +** | **Govt Rev.** | **Total Change** |  | **New** |  |
|  |  | **Dist. Of** | **Shared to** | **Tax Burden +** |  | **Level of** | **Percent** |
| **Sectors** | **Output** | **Tax** | **sectors** | **Redistribution** |  | **Output** | **Change** |
| **Ag** | 79.09 | -0.40 | 0.85 | 0.45 | 0.52 | 79.61 | 0.66% |
| **Livestock** | 35.08 | -0.18 | 0.85 | 0.67 | 0.89 | 35.97 | 2.54% |
| **Mining** | 29.79 | -0.15 | 0.85 | 0.70 | 0.61 | 30.39 | 2.04% |
| **Food Proc.** | 133.93 | -0.68 | 0.85 | 0.17 | 0.03 | 133.95 | 0.02% |
| **Chemicals** | 17.31 | -0.09 | 0.85 | 0.77 | 0.87 | 18.18 | 5.01% |
| **Engineering** | 59.97 | -0.30 | 0.85 | 0.55 | 1.04 | 61.01 | 1.74% |
| **Oth Mfn** | 57.01 | -0.29 | 0.85 | 0.56 | 1.15 | 58.16 | 2.02% |
| **Fuel power** | 16.74 | -0.08 | 0.85 | 0.77 | 1.05 | 17.79 | 6.28% |
| **Distribution** | 43.20 | -0.22 | 0.85 | 0.63 | 1.53 | 44.73 | 3.53% |
| **Tran&Comm** | 25.59 | -0.13 | 0.85 | 0.72 | 1.01 | 26.60 | 3.95% |
| **Bank. & Ins.** | 9.99 | -0.05 | 0.85 | 0.80 | 1.23 | 11.21 | 12.26% |
| **Professional** | 24.19 | -0.12 | 0.85 | 0.73 | 0.85 | 25.04 | 3.50% |
| **Build./Const.** | 70.57 | -0.90 | 0.85 | -0.05 | 0.26 | 70.83 | 0.36% |
| **Rent Dwell** | 7.26 | -0.70 | 0.85 | 0.15 | 0.15 | 7.41 | 2.12% |
| **Government** | 44.81 | 14.50 | 0.85 | 15.35 | 1.64 | 46.45 | 3.67% |
| **Households** | 234.51 | -6.30 | 0.85 | -5.45 | 0.04 | 234.55 | 0.02% |
| **Foreign(Imp)** | 127.34 | -3.90 | 0.85 | -3.05 | -0.61 | 126.73 | -0.48% |
| Total | 1016.36 | 0.00 | 14.50 | 14.50 | 12.27 | 1028.63 | 1.21% |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Table 5** | | | | | |
| **Graphic** | **Alternatives** | **Total** | **Normal** | **Ideal** | **Ranking** |
|  | 1 1962 | 0.0803 | 0.2409 | 0.7635 | 2 |
|  | 2 1963 | 0.0724 | 0.2173 | 0.6889 | 4 |
|  | 3 1964 | 0.0754 | 0.2263 | 0.7174 | 3 |
|  | 4 1965 | 0.1052 | 0.3155 | 1.0000 | 1 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Table 6: Data to Assess Lewis’s Plan | | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Description of  Infrastructure  Type | 1966-72  Lewis  Plan GM$ | 1965:  Pct. Of LF  Employed | 1959 GDP  Ind. GM$ | Forecasted 1959 GDP GM$ | Impacted  Industries | DEA  Scores PCT. |
| Capital to Industries | 12 | 24 | 412.5 | 417.0 | Manufacturing | 100\* |
| Drainage and Irrigation | 40 | 32 | 79.1 | 79.1 | Agriculture | 14.4 |
| Electricity | 4 | 19.9 | 16.74 | 17.79 | Power | 10.9 |
| Roads | 16.4 | 20 | 70.6 | 70.8 | Construction | 20.5\*\*\* |
| Georgetown Roads | 1 | 20 | 70.6 | 70.8 | Construction | 100\* |
| Railroad Improvements | 2 | 20 | 25.6 | 36.6 | Trans. &Com. | 36.0\*\* |
| Berbice  Harbor | 8 | 20 | 25.6 | 36.6 | Trans.  &Com. | 12.8 |
| Air survey | 3 | 27.3 | 46.53 | 48.18 | Mine & Hydro | 32.8\*\* |
| Vocational Training | 1.8 | 19.9 | 24.2 | 25.04 | Professional | 26.3\*\*\* |
| Health/Hosp. Centers | 14 | 19.9 | 24.2 | 25.04 | Professional | 7.2 |
| Riot Displacement expenditures | 0.1 | 19.9 | 7.3 | 7.41 | Dwellings | 100\* |
| Defense and Military forces | 13 | 19.9 | 44.8 | 46.45 | Government | 13.4 |
| Sources:  Col.2: A. Lewis and other, “The ABC of the Development Programme 1966-1972, (Georgetown, Guyana: A Guyana Information Service Publications), pp. 3-55;  Col 3: M. K. Bacchus, “Education for Development and Underdevelopment: Guyana’s Educational System and its Implications for the Third World,” (Ontario, Canada: Wilfrid Laurier University Press, 1980), Table 7. p. 39.  Cols. 4 & 5: see Table 4.  Col. 6: Author’s judgment.  Col. 6. DEA Estimates using Banxia Frontier Software & GAMS Software. | | | | | | |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Table 7: Lowe’s Three Sectors Model of Guyana for 2006** | | | | | | | |
|  | **F** |  | **f** |  | **n** |  | **O** |
| Ia | 2,715 |  | 271 |  | 2,510 |  | 2,781 |
| Ib | 25,099 |  | 2,510 |  | 23,205 |  | 25,715 |
| II | 257,154 |  | 25,715 |  | 237,752 |  | 263,467 |
| Sum | 284,968 |  | 28,497 |  | 263,467 |  | 291,964 |
| Source: Lowe’s initial model calibrated for 2006 employment data. | | | | | | | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Table 8: GDP Gap and Sector Ia Performance in Guyana 1972-1984** | | | | | | | | |
|  | Actual | Natural | Ia Actual | Ia Natural | Natural | WIP | WIP | **Net** |
| Year | Real GDP | MillionG$ | Inv. Mach. | Inv. Mach. | -Actual | Actual GDP | Nat. GDP | WIP |
| 1972 | 19,872 | 23,800 | 189 | 227 | 37 | 1,987 | 2,380 | 393 |
| 1973 | 20,213 | 23,331 | 193 | 222 | 30 | 2,021 | 2,333 | 312 |
| 1974 | 21,626 | 23,732 | 206 | 226 | 20 | 2,163 | 2,373 | 211 |
| 1975 | 23,880 | 25,391 | 227 | 242 | 14 | 2,388 | 2,539 | 151 |
| 1976 | 24,579 | 28,037 | 234 | 267 | 33 | 2,458 | 2,804 | 346 |
| 1977 | 23,403 | 28,858 | 223 | 275 | 52 | 2,340 | 2,886 | 545 |
| 1978 | 22,998 | 27,477 | 219 | 262 | 43 | 2,300 | 2,748 | 448 |
| 1979 | 20,311 | 27,001 | 193 | 257 | 64 | 2,031 | 2,700 | 669 |
| 1980 | 20,644 | 23,847 | 197 | 227 | 31 | 2,064 | 2,385 | 320 |
| 1981 | 20,581 | 13,946 | 196 | 133 | (63) | 2,058 | 1,395 | -663 |
| 1982 | 18,438 | 13,903 | 176 | 132 | (43) | 1,844 | 1,390 | -453 |
| 1983 | 16,731 | 12,456 | 159 | 119 | (41) | 1,673 | 1,246 | -428 |
| 1984 | 17,085 | 11,303 | 163 | 108 | (55) | 1,709 | 1,130 | -578 |
| Sources: Real GDP 1990=100 (Gafar 2003, p. 58-59); GDP gap (Estimate using Okun Gap rule); Sector Ia estimate (Lowe 1995 model). | | | | | | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Table 9.**  **Gross Domestic Investment to GDP at Current Prices.** | | | | |
| 1960 | 28.25 |  | 1986 | 27.80 |
| 1961 | 23.98 |  | 1987 | 18.03 |
| 1962 | 16.64 |  | 1988 | 18.87 |
| 1963 | 16.89 |  | 1989 | 27.71 |
| 1964 | 16.05 |  | 1990 | 41.16 |
| 1965 | 22.25 |  | 1991 | 52.49 |
| 1966 | 23.87 |  | 1992 | 41.51 |
| 1967 | 25.82 |  | 1993 | 27.22 |
| 1968 | 22.26 |  | 1994 | 33.23 |
| 1969 | 20.82 |  | 1995 | 31.86 |
| 1970 | 22.74 |  | 1996 | 31.89 |
| 1971 | 18.63 |  | 1997 | 28.92 |
| 1972 | 19.85 |  | 1998 | 25.00 |
| 1973 | 27.21 |  | 1999 | 23.78 |
| 1974 | 26.41 |  | 2000 | 22.06 |
| 1975 | 33.06 |  | 2001 | 20.97 |
| 1976 | 37.42 |  | 2002 | 20.98 |
| 1977 | 29.06 |  | 2003 | 23.60 |
| 1978 | 20.51 |  | 2004 | 24.78 |
| 1979 | 31.00 |  | 2005 | 28.37 |
| 1980 | 29.77 |  | 2006 | 24.67 |
| 1981 | 29.49 |  | 2007 | 23.95 |
| 1982 | 24.97 |  | 2008 | 26.64 |
| 1983 | 21.39 |  | 2009 | 25.40 |
| 1984 | 27.42 |  | 2010 | 23.88 |
| 1985 | 29.85 |  | 2011 | 24.92 |
| Sources: 1960-1979: Central Bank of Guyana, Annual Reports & Kayum 2001, p. 80. 1980-2011: World Development Indicator. | | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Table 10**  **Spectral Coherence Analysis** | | | | | |
|  | **Guyana** | **Guyana** | **Guyana** | **Guyana** | **Guyana** |
| **Mean of** | **vs,** | **vs,** | **vs,** | **vs,** | **vs,** |
| **Specrum** | **Average** | **Trinidad** | **Barbados** | **Honduras** | **Venezuela** |
|  |  |  |  |  |  |
| Sxx | 1.28E-08 | 1.28E-08 | 1.28E-08 | 1.28E-08 | 1.28E-08 |
| Sqrt | 0.00011 | 0.00011331 | 0.00011 | 0.000113 | 0.000113314 |
|  |  |  |  |  |  |
| Syy | 7.39E-09 | 9.21E-09 | 6.01E-09 | 9.25E-09 | 1.10E-08 |
| Sqrt | 8.6E-05 | 9.599E-05 | 7.8E-05 | 9.62E-05 | 0.000104776 |
|  |  |  |  |  |  |
| Sxy | 9.30E-09 | 1.00E-08 | 7.89E-09 | 1.03E-08 | 1.10E-08 |
| Abs | 9.3E-09 | 1.0019E-08 | 7.9E-09 | 1.03E-08 | 1.0963E-08 |
| Coherence | 0.95406 | 0.92112328 | 0.89834 | 0.943691 | 0.923390259 |
| Sxx =Power Spectrum of Guyana | | |  |  |  |
| Syy= {pwer Spectrum of another country or average of all others | | | | | |
| Sxy=Cross-Spectral between x and y | | | |  |  |
| Coherence = abs(Sxy)/ (sqrt(Sxx)\*sqrt(Syy) | | | |  |  |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Table 11: Percent Change in Population, NNI and NM per 1000 persons: Guyana** | | | | | | | | | |
| **Years** | **1980** | **1981** | **1982** | **1983** | **1984** | **1985** | **1986** | **1987** | **1988** | **1989** |
| **Pct. PoP.** | 0.27 | -0.16 | -0.53 | -0.79 | -0.91 | -0.91 | -0.86 | -0.78 | -0.64 | -0.46 |
| **NNI** | 9.23 | 9.15 | 9.10 | 9.07 | 9.07 | 9.10 | 9.23 | 9.32 | 9.40 | 9.47 |
| **NM** |  |  | -84.98 |  |  |  | -76.40 |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| **Years** | **1990** | **1991** | **1992** | **1993** | **1994** | **1995** | **1996** | **1997** | **1998** | **1999** |
| **Pct. PoP.** | -0.25 | -0.03 | 0.14 | 0.25 | 0.32 | 0.37 | 0.44 | 0.47 | 0.48 | 0.46 |
| **NNI** | 9.52 | 9.56 | 9.56 | 9.55 | 9.51 | 9.45 | 9.38 | 9.30 | 9.22 | 9.11 |
| **NM** |  | -46.48 |  |  |  |  | -31.34 |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| **Years** | **2000** | **2001** | **2002** | **2003** | **2004** | **2005** | **2006** | **2007** | **2008** | **2009** |
| **Pct. PoP.** | 0.43 | 0.40 | 0.40 | 0.44 | 0.51 | 0.59 | 0.66 | 0.69 | 0.68 | 0.65 |
| **NNI** | 8.98 | 8.83 | 8.64 | 8.43 | 8.19 | 7.94 | 7.69 | 7.45 | 7.22 | 7.03 |
| **NM** |  | -32.76 |  |  |  |  | -32.76 |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| **Years** | **2010** | **2011** | **2012** |  |  |  |  |  |  |  |
| **Pct. PoP.** | 0.60 | 0.57 | 0.53 |  |  |  |  |  |  |  |
| **NNI** | 6.877 | 6.764 |  |  |  |  |  |  |  |  |
| **NM** |  | -32.77 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  | Source: | World Bank Data: [WWW.Qandl.com/worlbank](http://WWW.Qandl.com/worlbank) | | | | | | |  |  |





