

OPPORTUNITY FOR A REGIONAL DOMESTIC MARKET FOR OIL AND GAS

EASTERN AFRICA REGION



APPENDIX A



AFREC
African Energy
Commission

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Understanding the flow infographics

This section presents flow infographics for each country in the Eastern Africa region, illustrating the movement of crude oil and refined petroleum product, natural gas, and LPG. These infographics visually represent how these commodities are explored, produced, consumed, stored, and traded within the country.

Crude oil and Refined Petroleum product

For crude oil and refined petroleum product, the flow begins with exploration potential, which included both planned and explored areas. Successful exploration leads to proven reserves, which in turn supports crude oil production. Once crude oil is produced, it is distributed across three key areas, namely, domestic consumption, exports, and storage.

This distribution process starts by meeting export requirements, with priority given to import-based exports, followed by production-based exports. Domestic consumption is the fulfilled first through imports, and any remaining demand is met with domestic production. If the production and imports of crude oil is insufficient to meet the consumption requirements, the shortfall is covered by crude oil storage. Conversely, if production exceeds both consumption and export requirements, the surplus is directed into storage.

Crude oil consumption feeds into the country's refining capacity, producing refined petroleum products. The distribution of these refined petroleum products follows a similar pattern as crude oil, meeting domestic consumption, exports, and storage needs in the same priority order. The approach for balancing consumption and export values remains consistent with that of crude oil.

Natural Gas

For natural gas, the flow infographic follows a similar method to that of the crude oil and refined petroleum product. The infographics begins with exploration potential, which includes both planned and explored areas. Successful exploration leads to proven reserves, which then supports natural gas production.

Unlike the crude oil and refined petroleum product, the Eastern African countries are not currently trading in natural gas. As a result, production is directly linked to consumption. If the production of natural gas exceeds the demand, the excess gas is indicated as being flared, which serves as a balancing mechanism for the infographic.

Liquefied Petroleum Gas

For LPG, the flow infographic begins with production, which is allocated across three key areas: consumption, exports, and storage.

LPG export requirements are first met with the consideration of import-based exports, followed by production, given that the export requirements are greater than that which is being imported to export. Consumption is, in turn, first fulfilled through imports, with any remaining demand covered by production.

If the production or imports exceeds the consumption requirement, the surplus is directed into LPG storage. Conversely, if production and imports are insufficient to meeting the consumption requirements, the shortfall is balanced by withdrawing the required amount from storage.

Crude Oil and Petroleum Product Flow Infographics









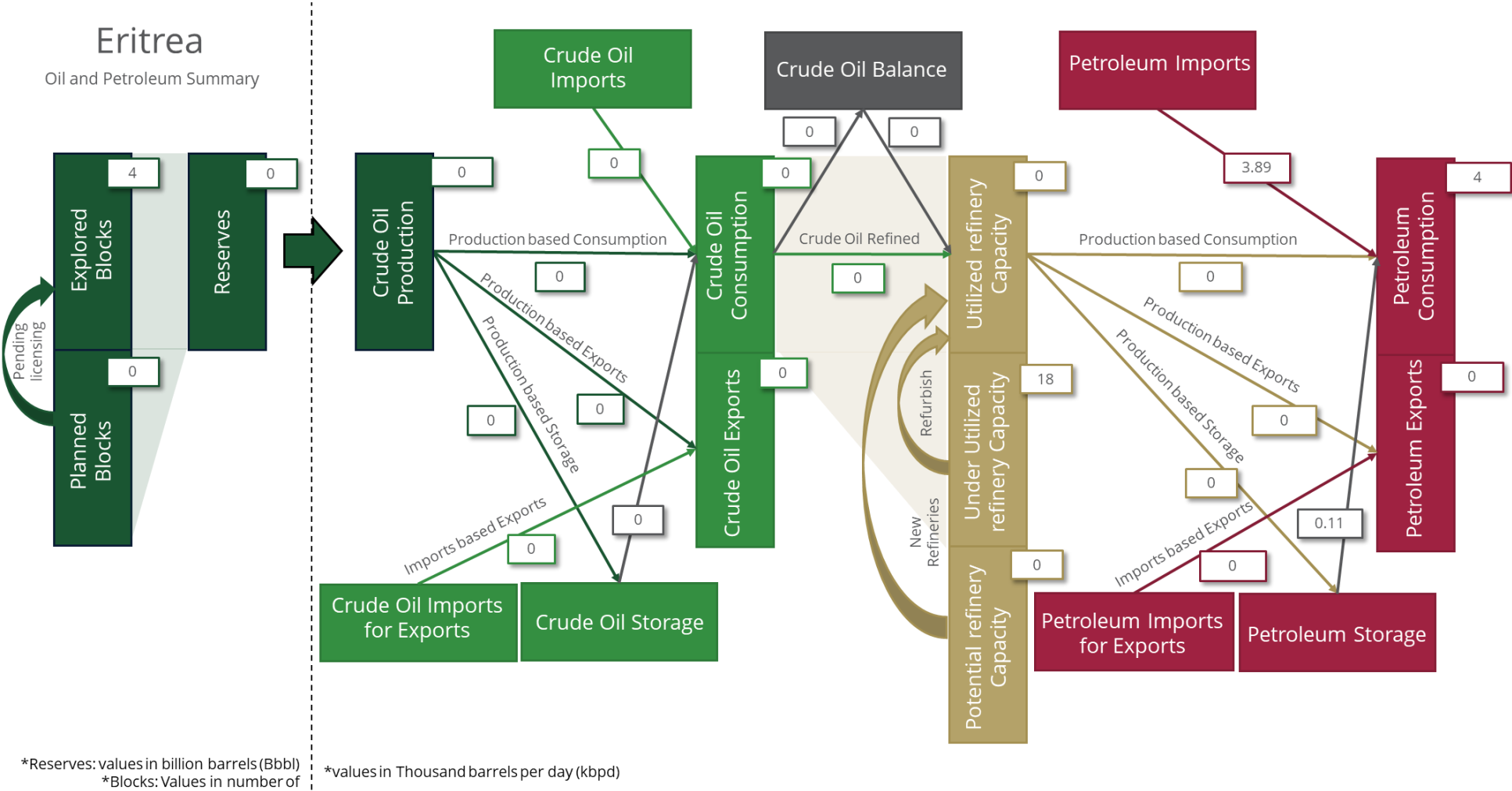


Figure 4: Eritrea Country-Specific Crude Oil and Petroleum Product Flow Infographic

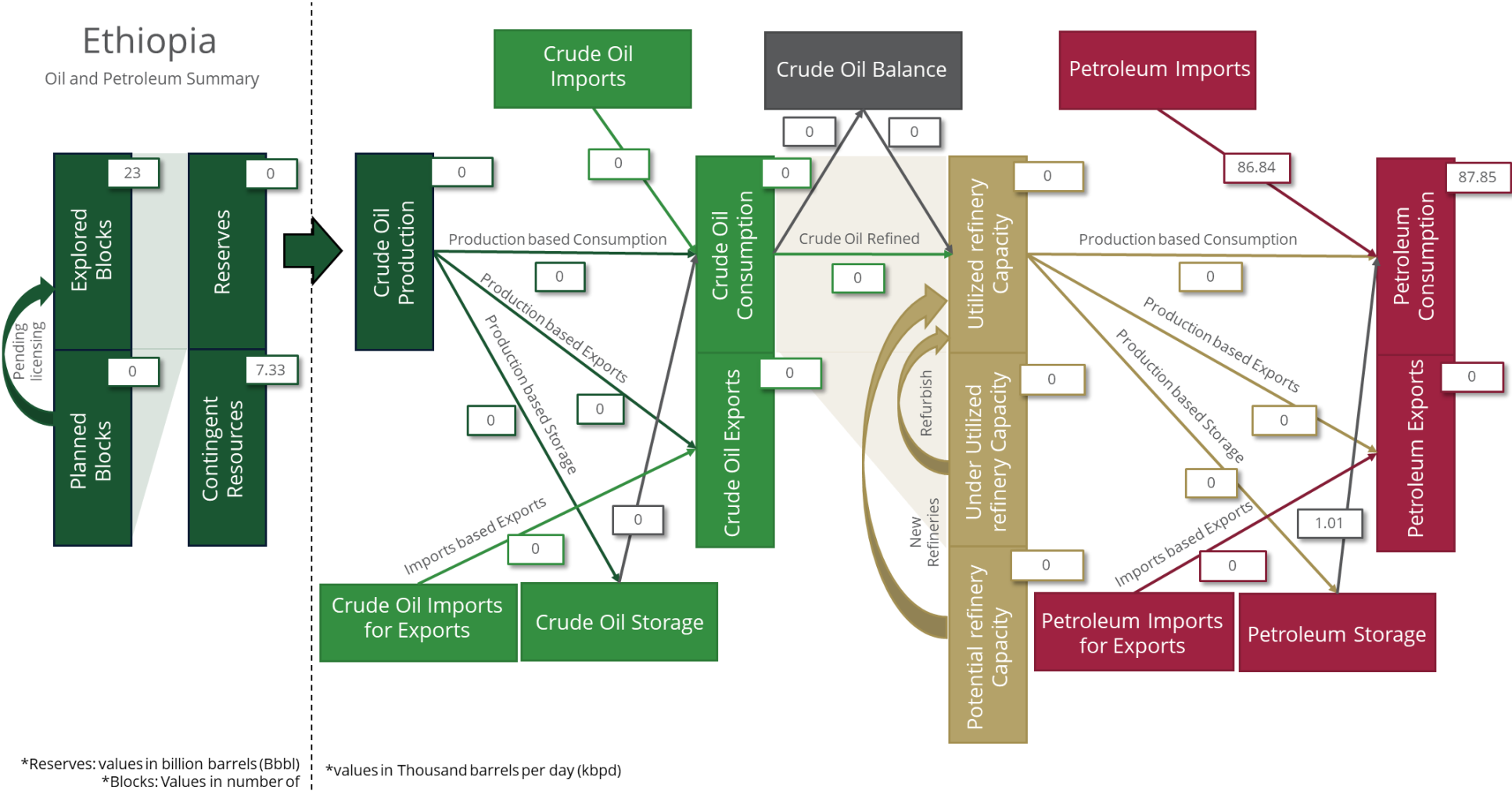


Figure 5: Ethiopia Country-Specific Crude Oil and Petroleum Product Flow Infographic

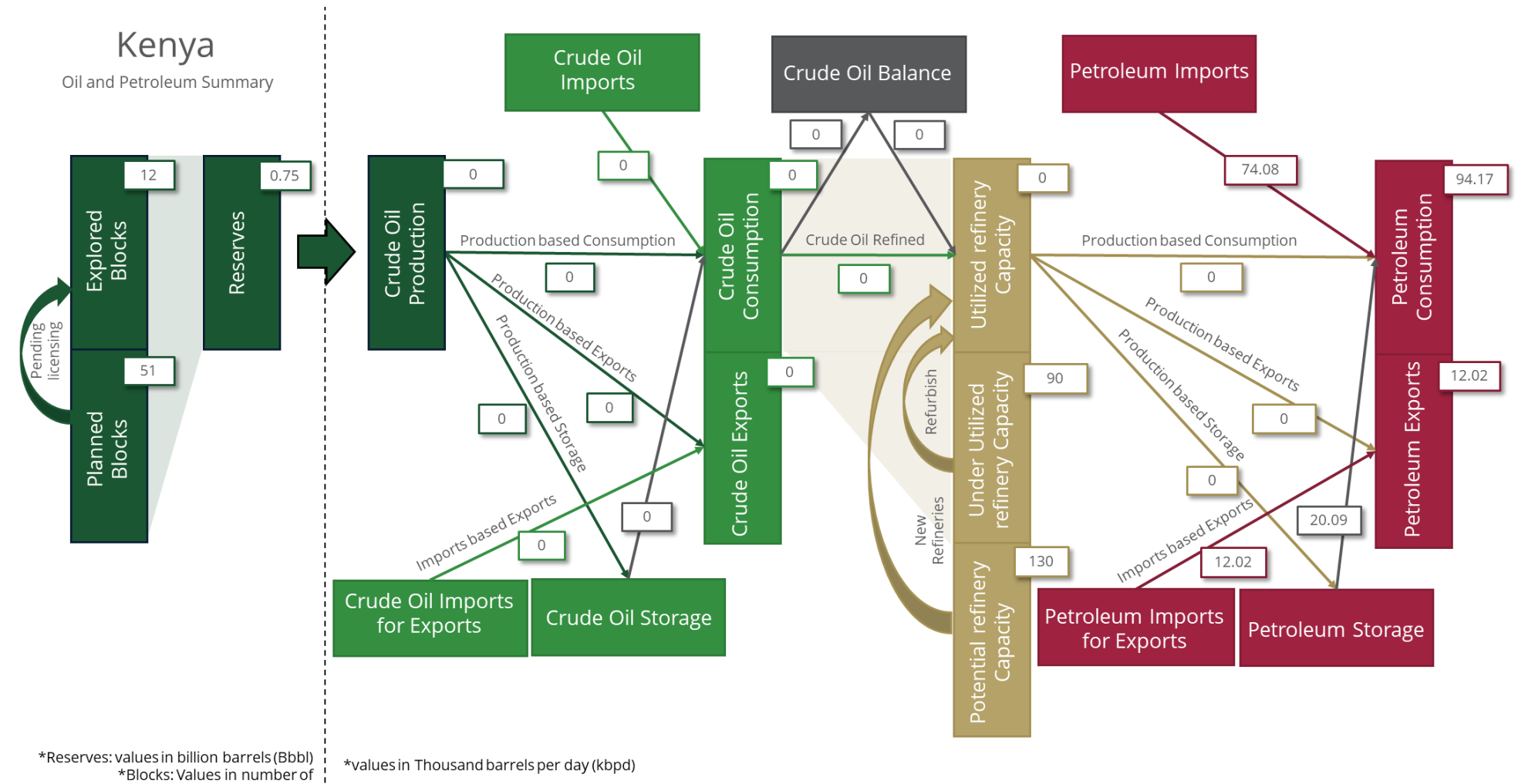


Figure 6: Kenya Country-Specific Crude Oil and Petroleum Product Flow Infographic



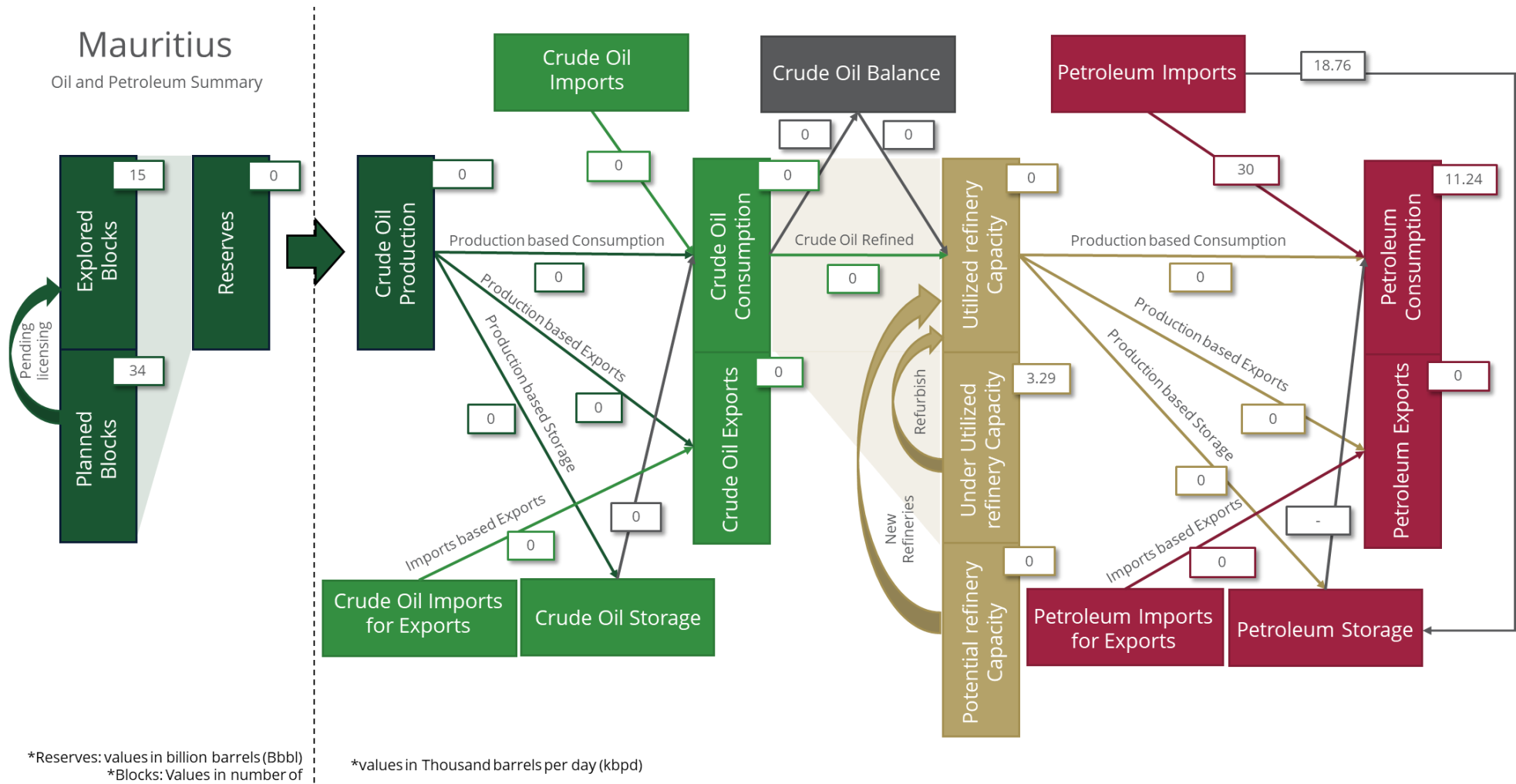


Figure 8: Mauritius Country-Specific Crude Oil and Petroleum Product Flow Infographic

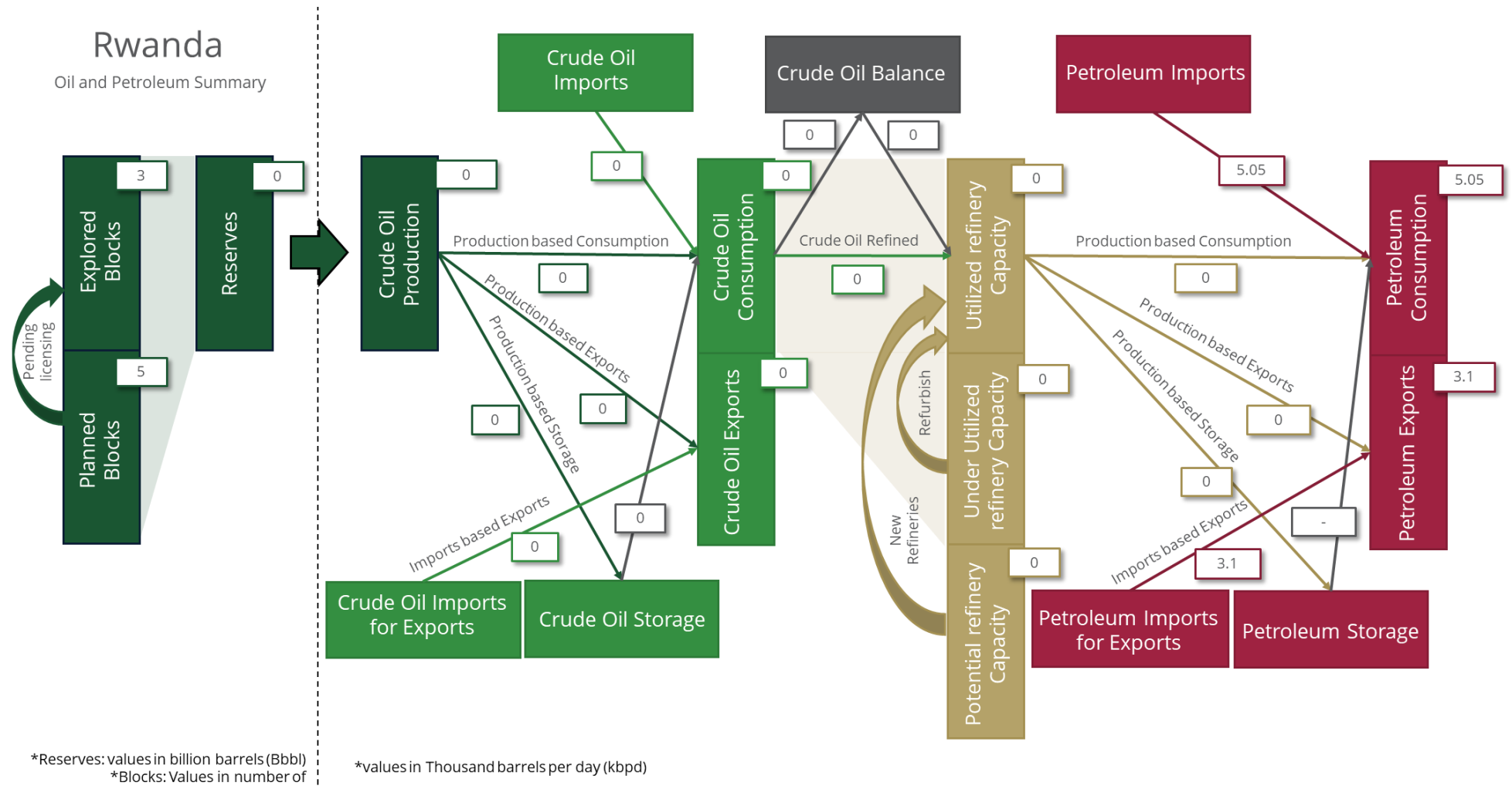


Figure 9: Rwanda Country-Specific Crude Oil and Petroleum Product Flow Infographic

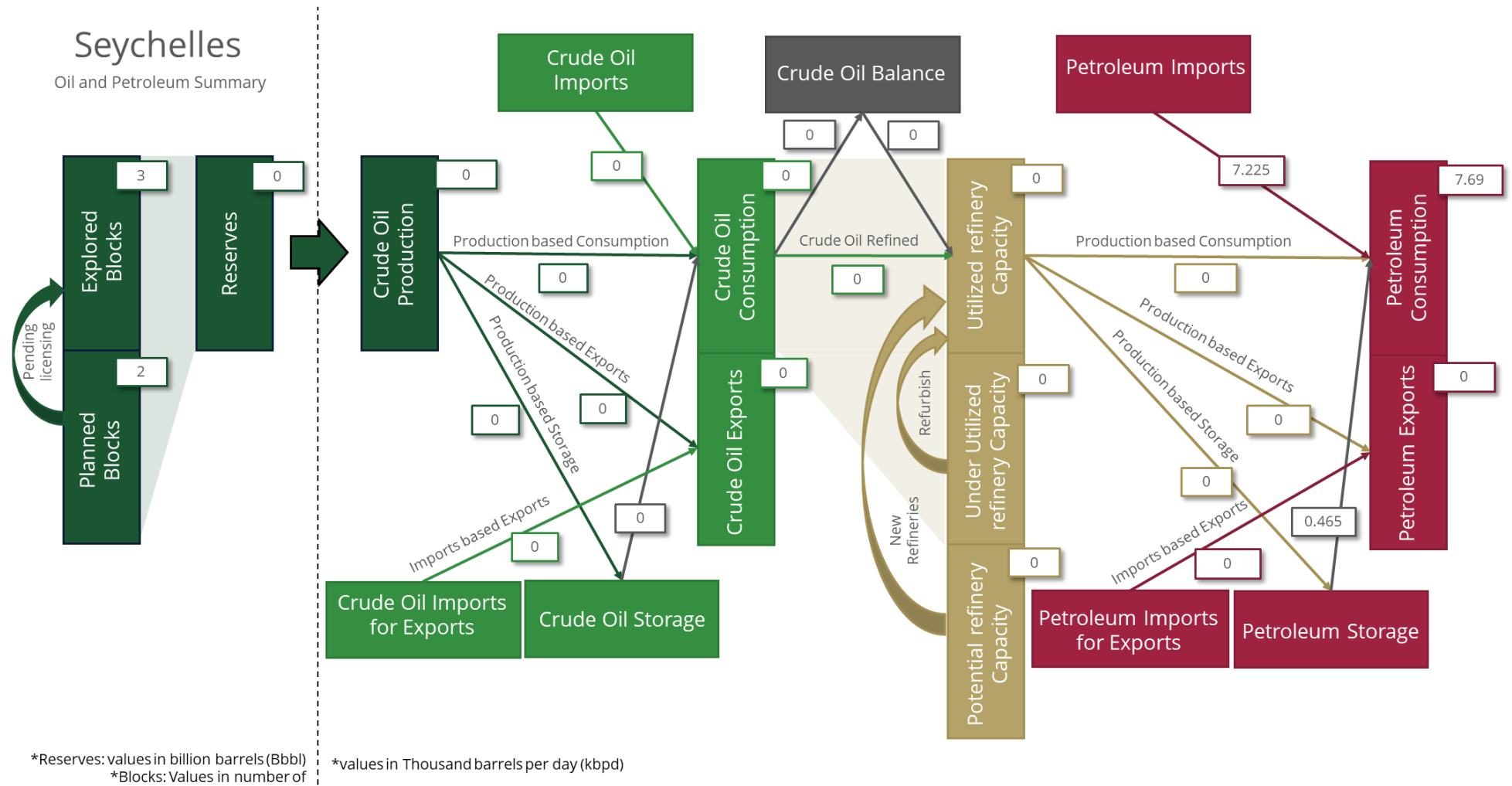


Figure 10: Seychelles Country-Specific Crude Oil and Petroleum Product Flow Infographic

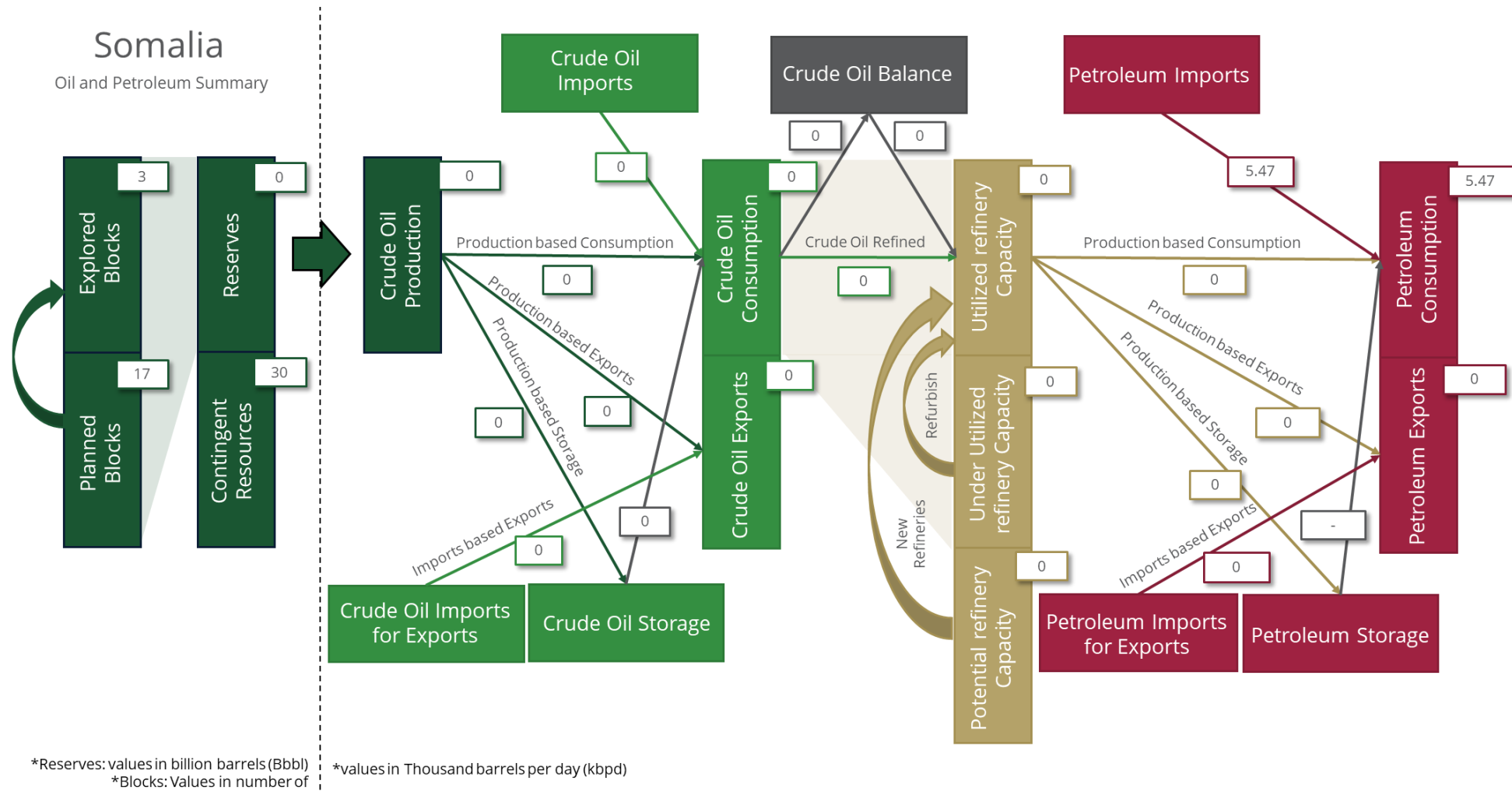


Figure 11: Somalia Country-Specific Crude Oil and Petroleum Product Flow Infographic

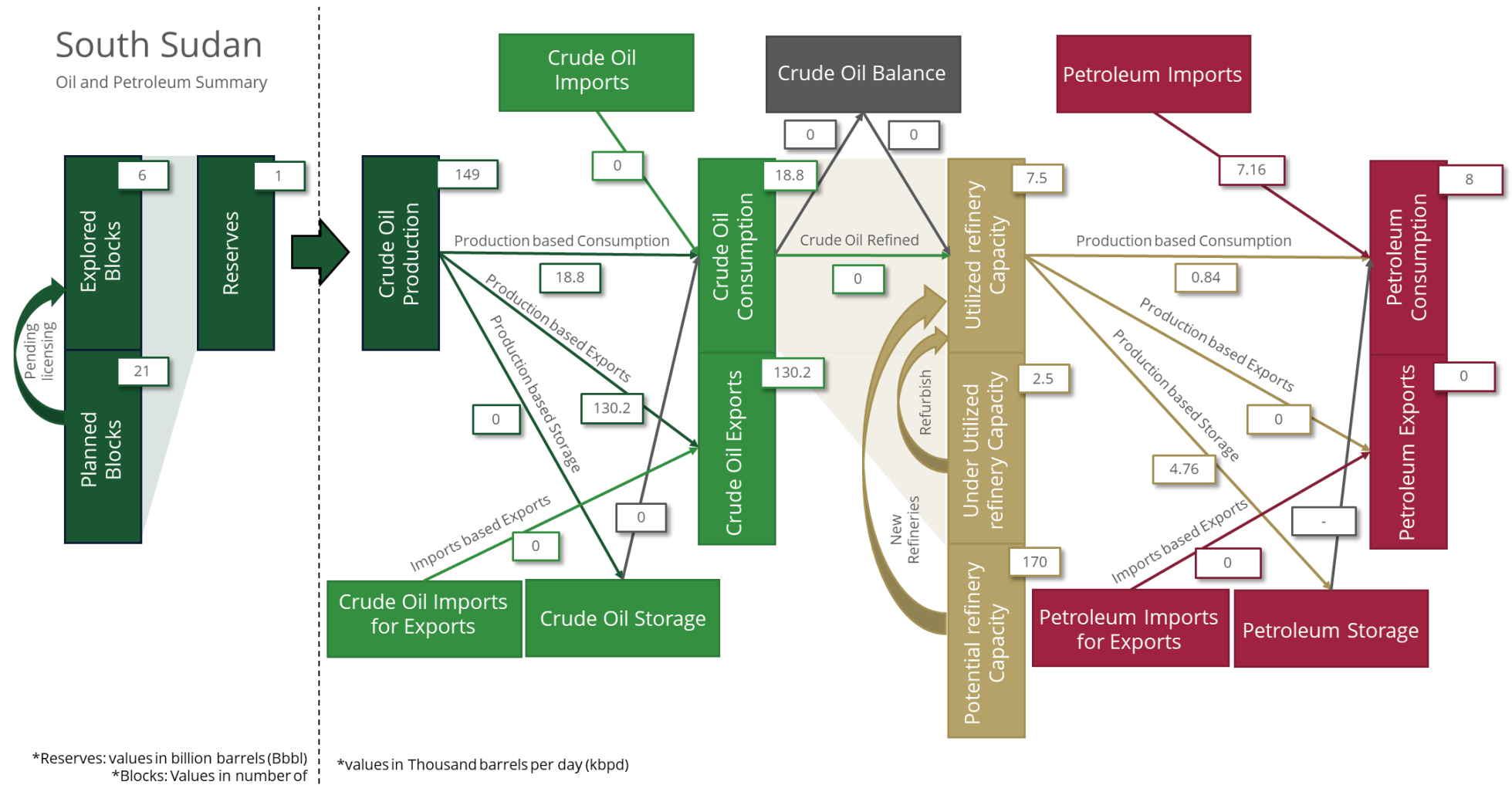
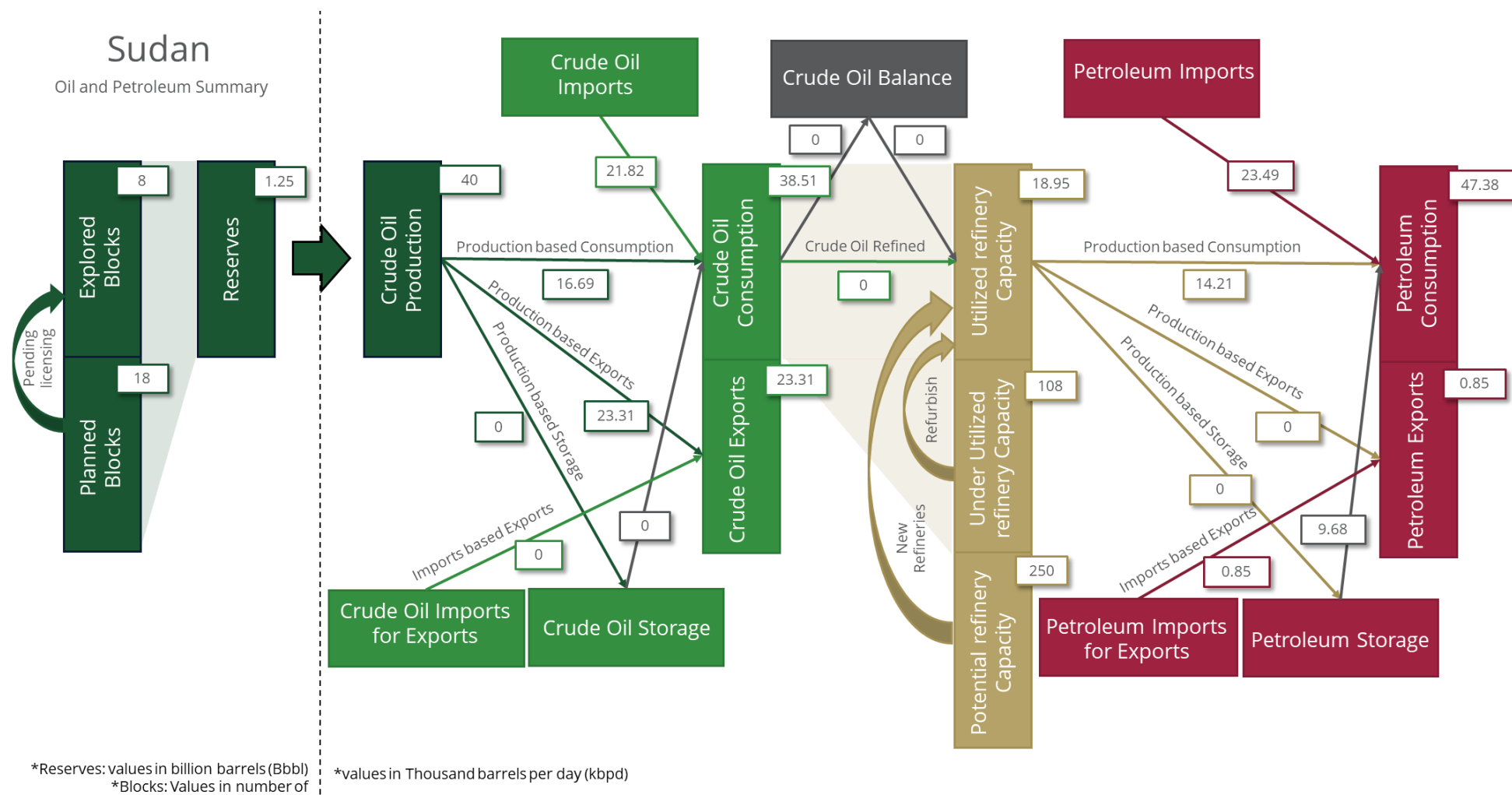


Figure 12: South Sudan Country-Specific Crude Oil and Petroleum Product Flow Infographic



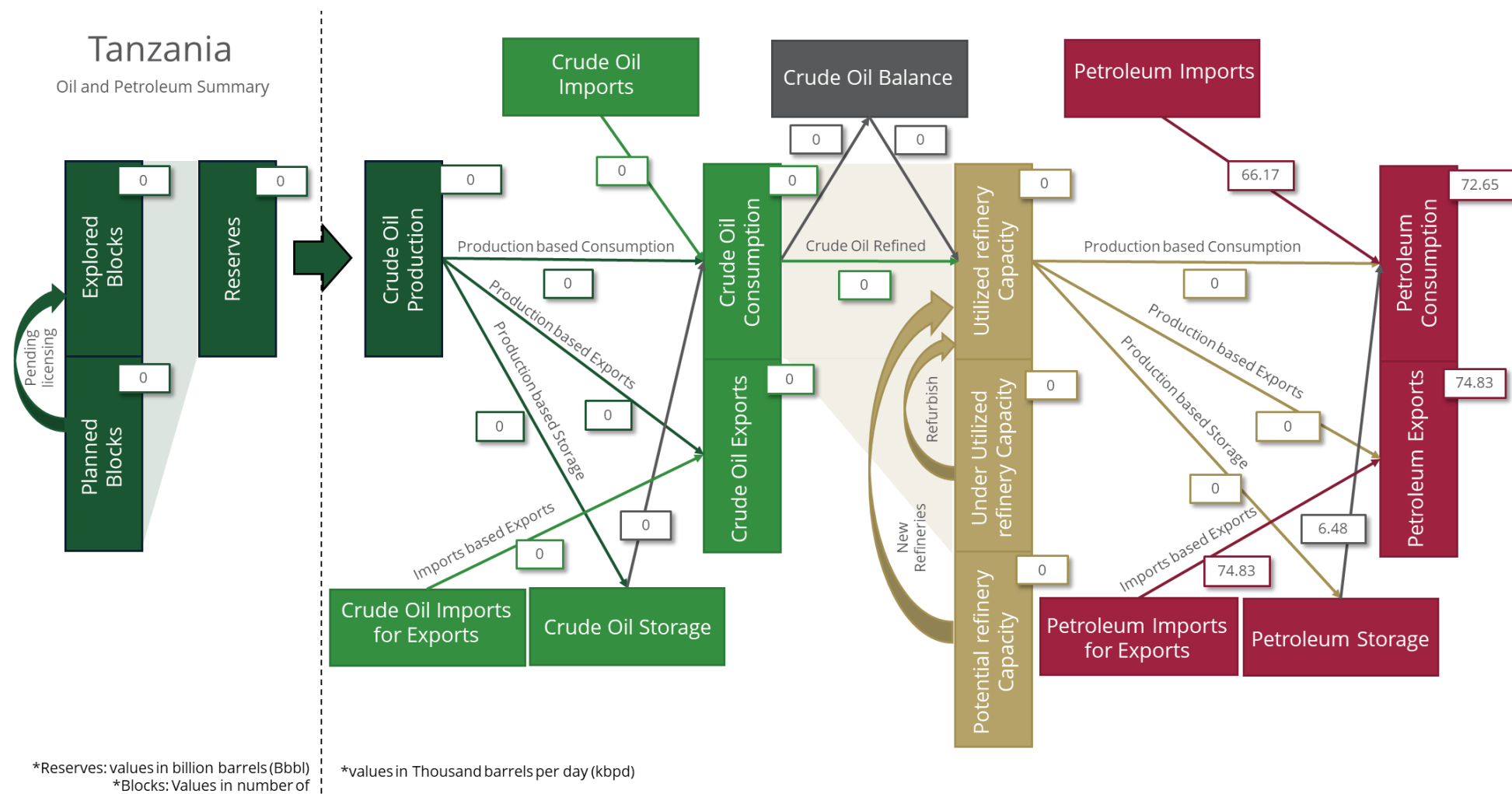


Figure 14: Tanzania Country-Specific Crude Oil and Petroleum Product Flow Infographic

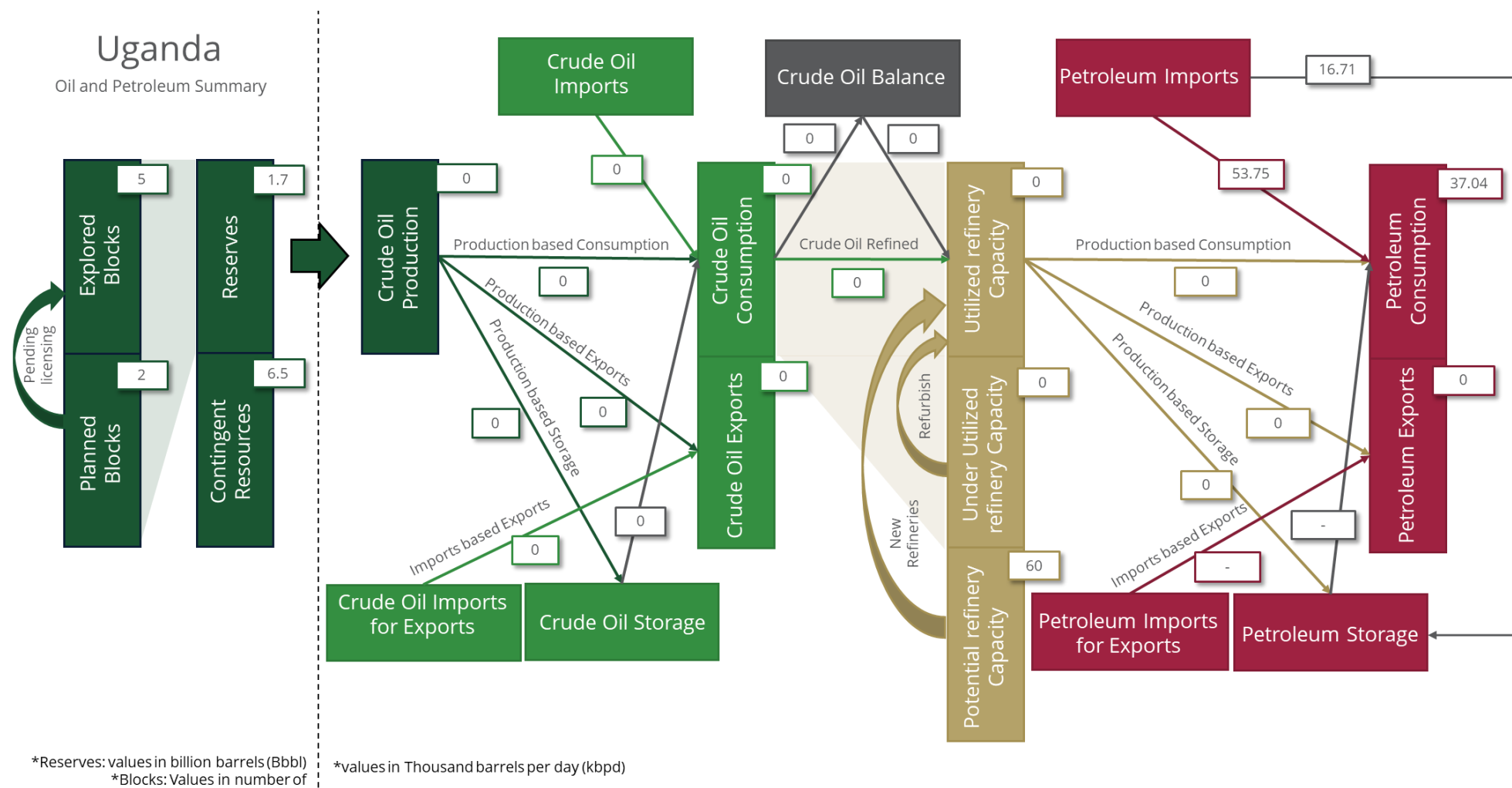


Figure 15: Uganda Country-Specific Crude Oil and Petroleum Product Flow Infographic

Natural Gas Flow Infographics



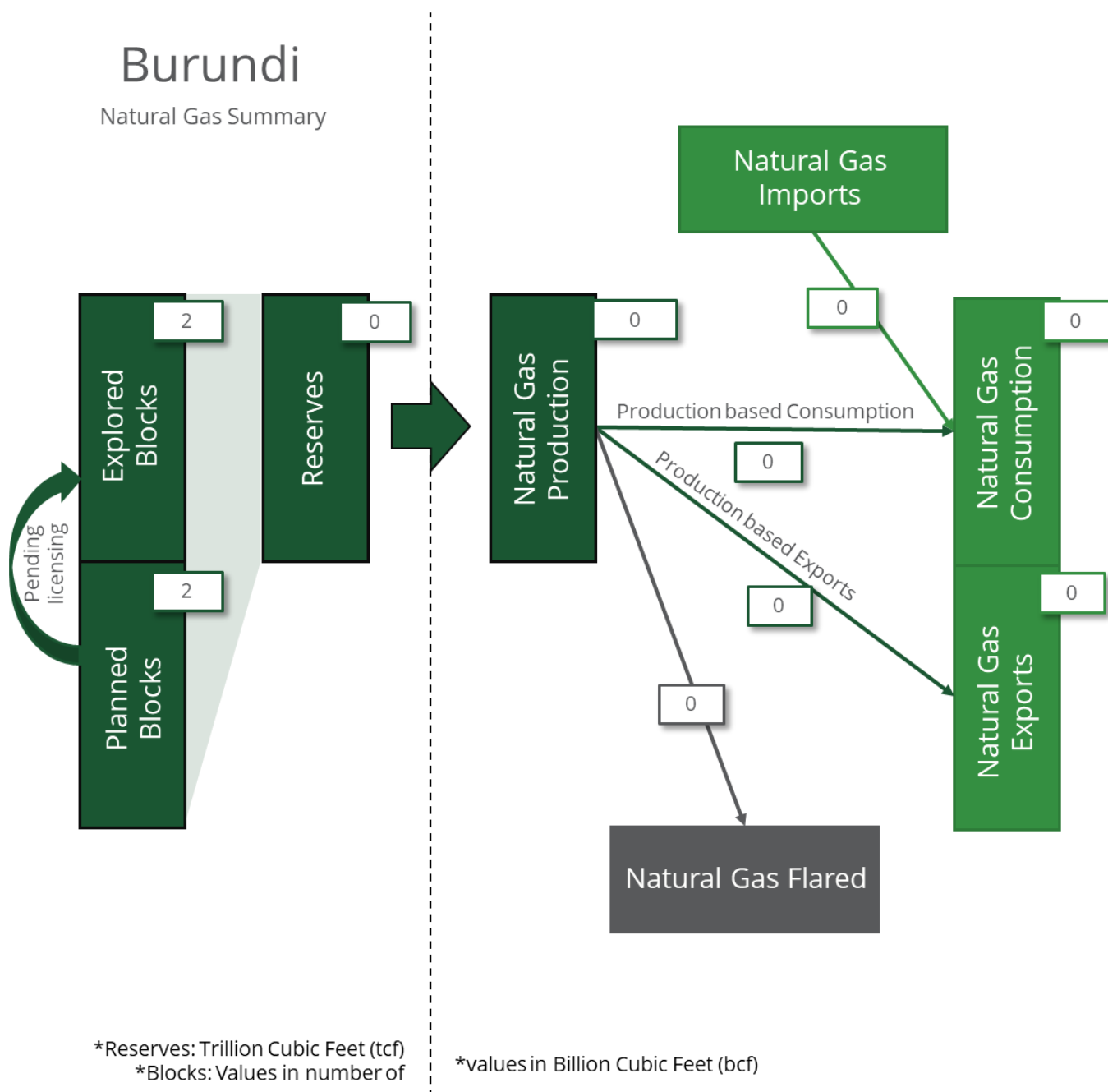


Figure 16: Burundi Country-Specific Natural Gas Flow Infographic

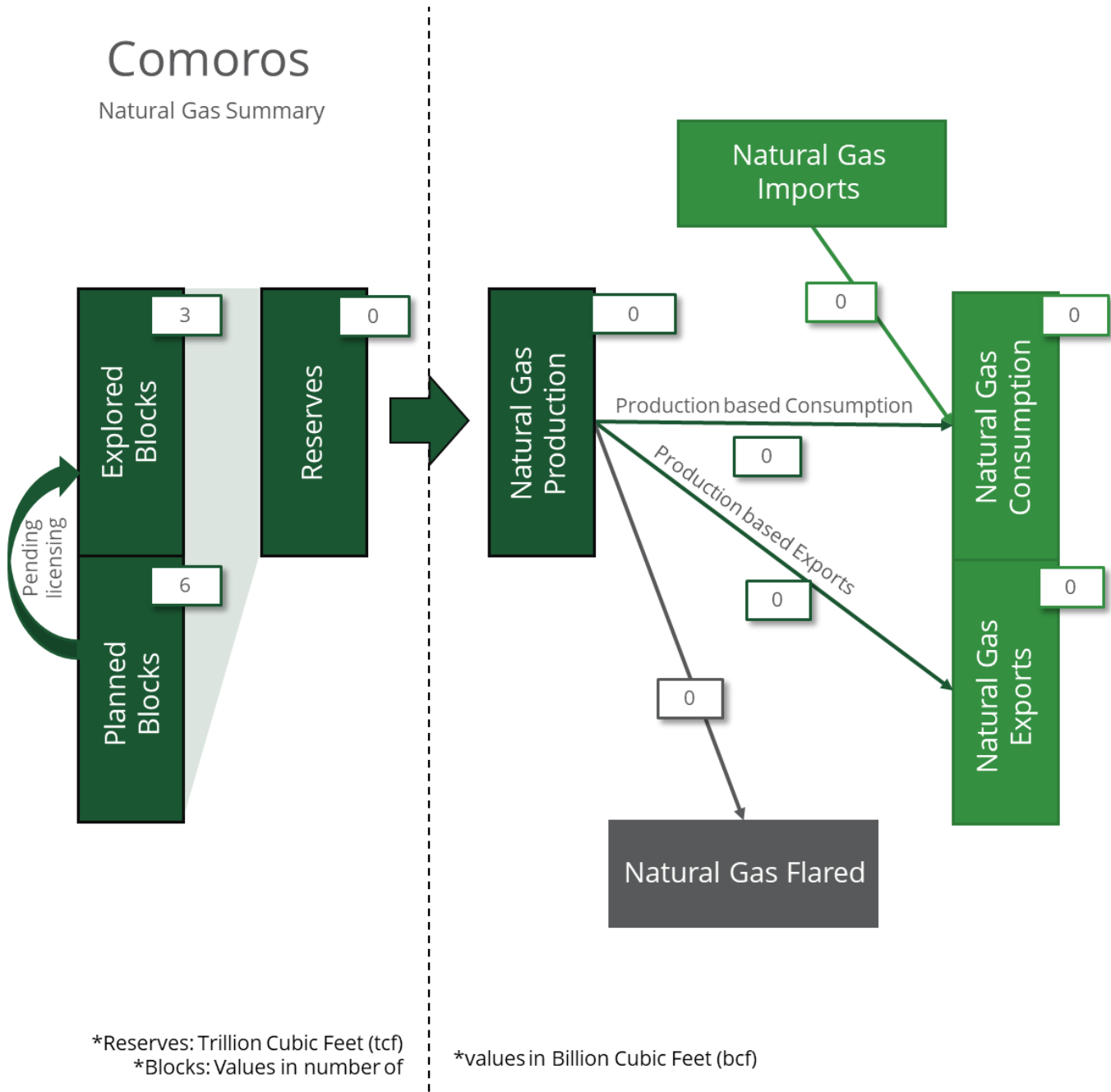


Figure 17: Comoros Country-Specific Natural Gas Flow Infographic

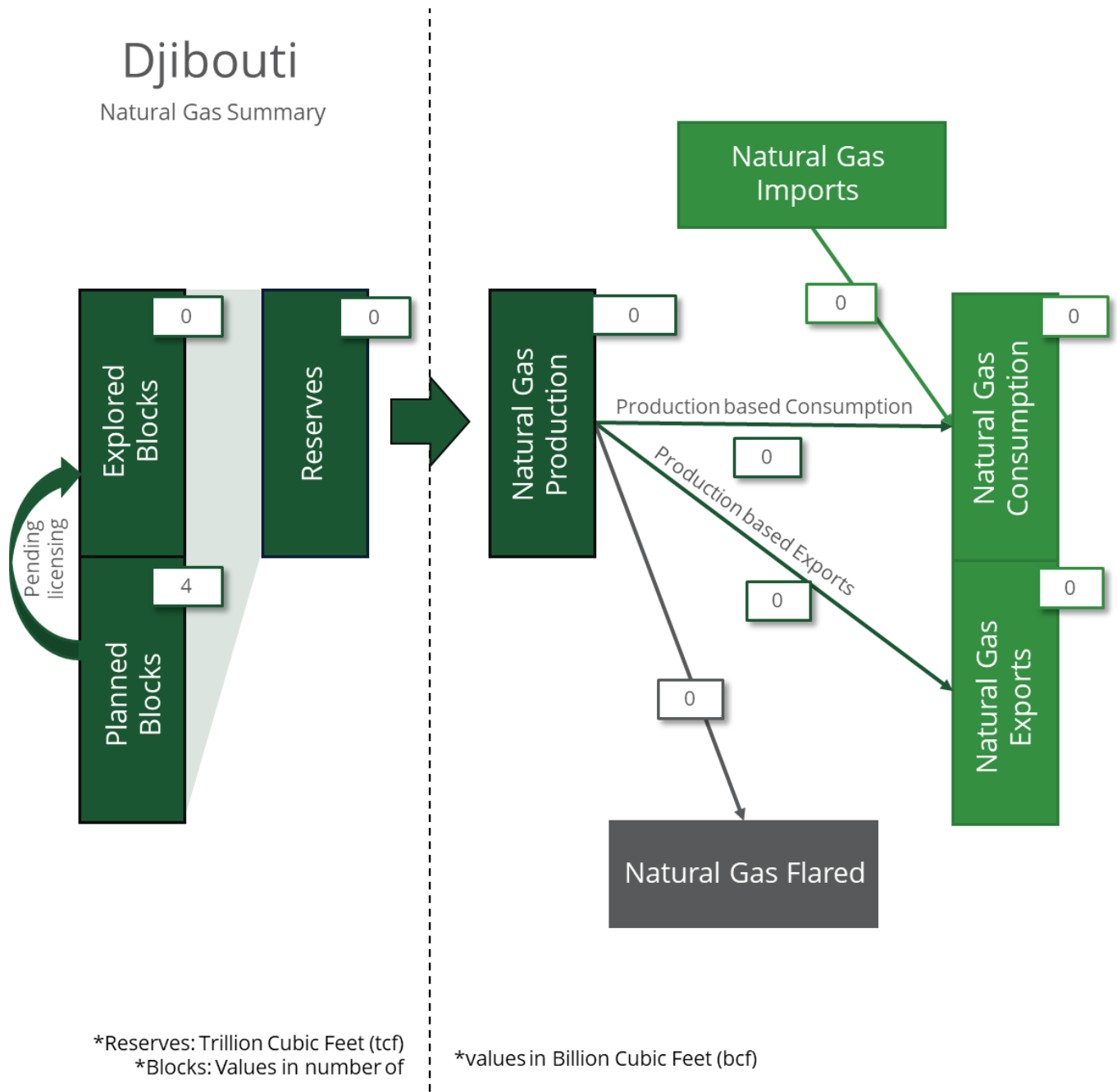


Figure 18: Djibouti Country-Specific Natural Gas Flow Infographic

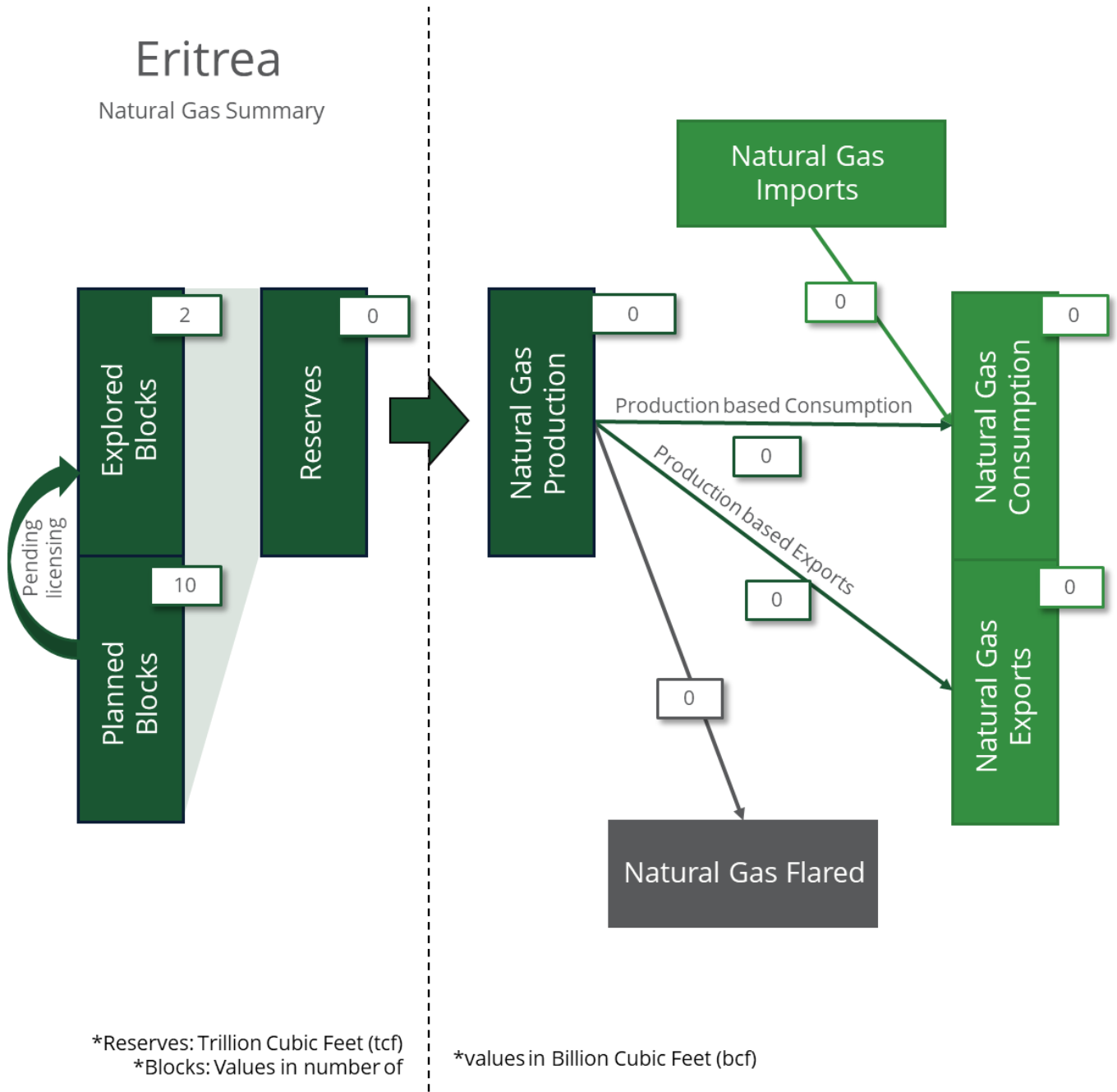


Figure 19: Eritrea Country-Specific Natural Gas Flow Infographic

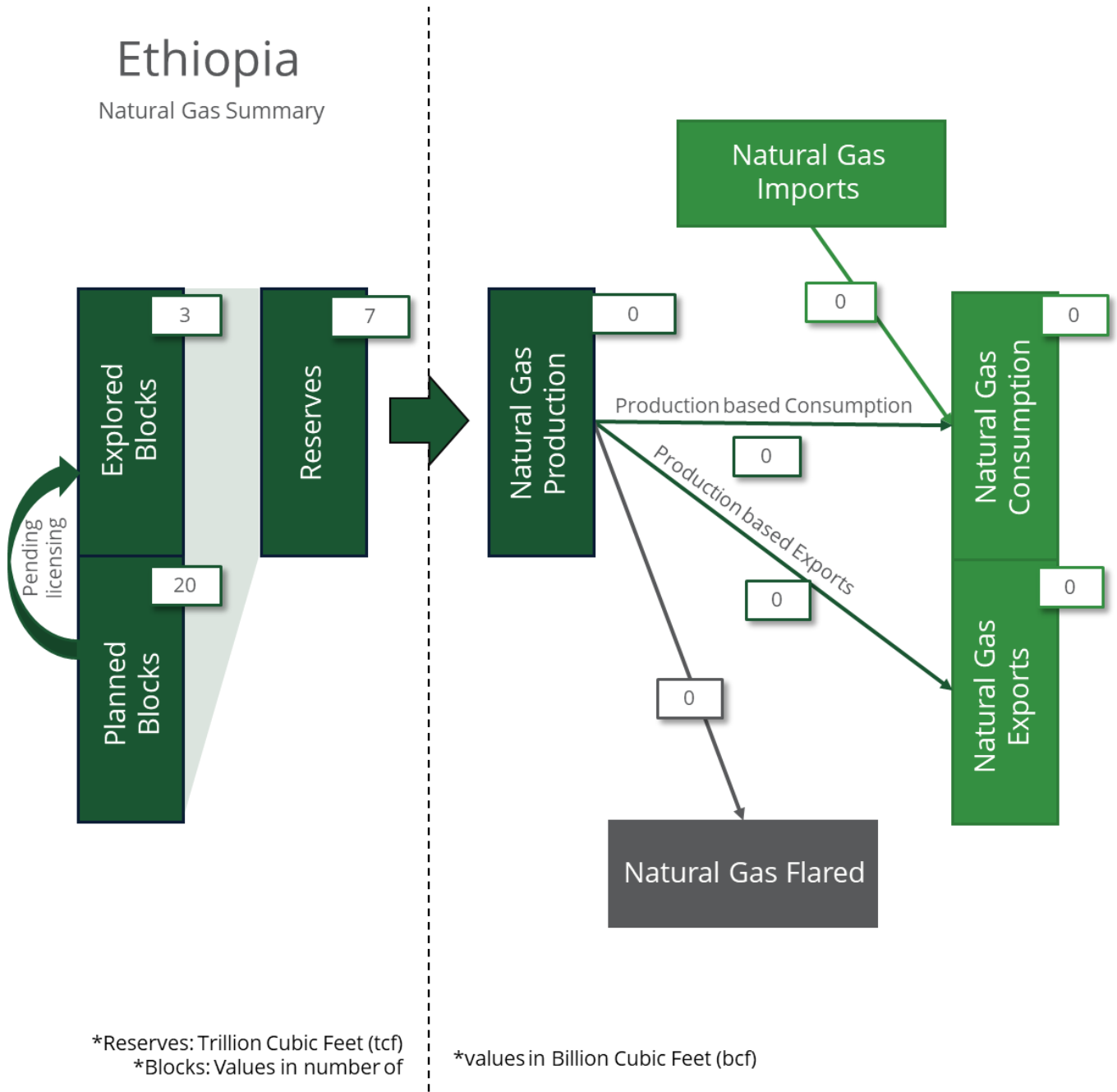


Figure 20: Ethiopia Country-Specific Natural Gas Flow Infographic

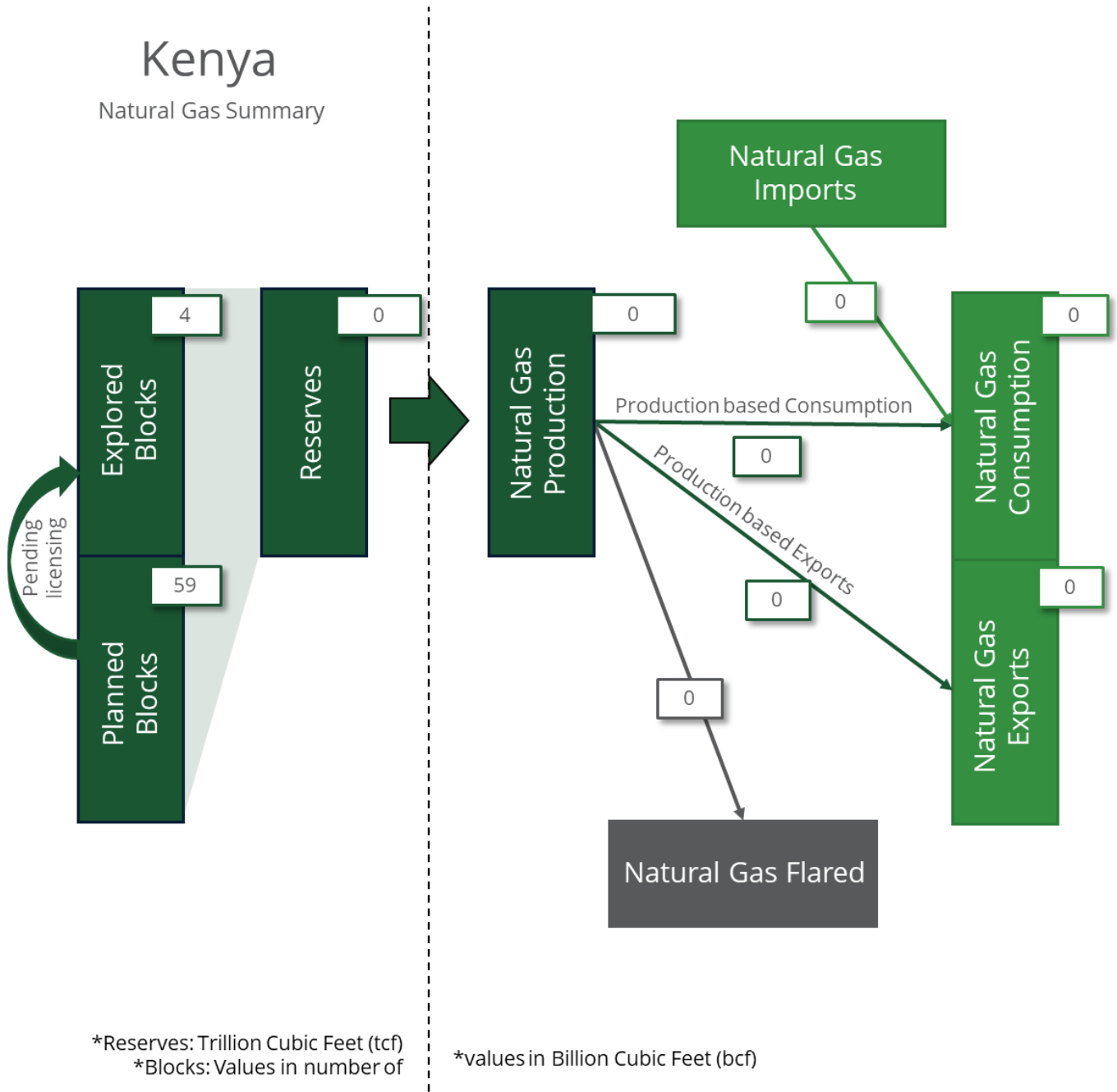


Figure 21: Kenya Country-Specific Natural Gas Flow Infographic

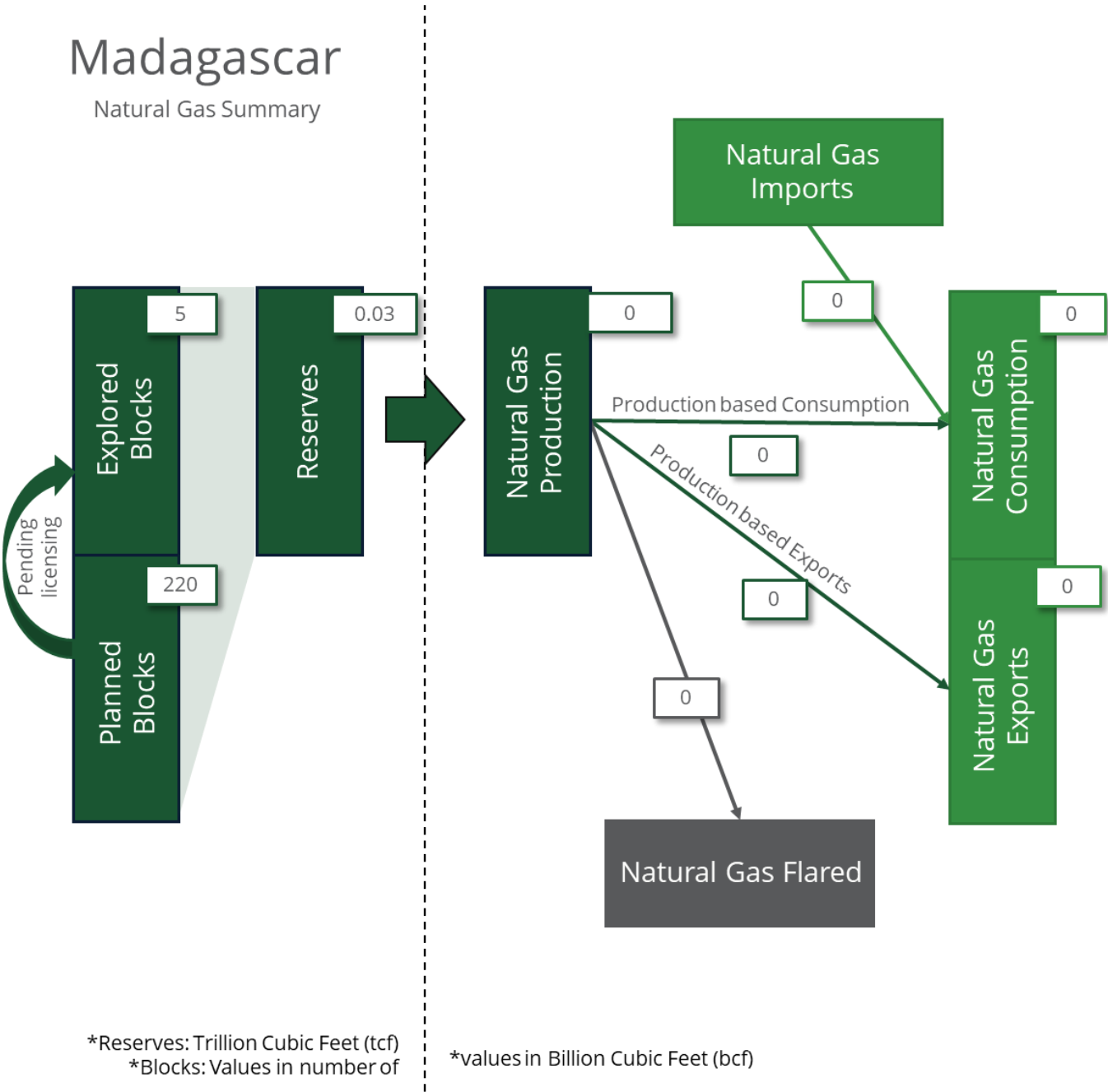


Figure 22: Madagascar Country-Specific Natural Gas Flow Infographic

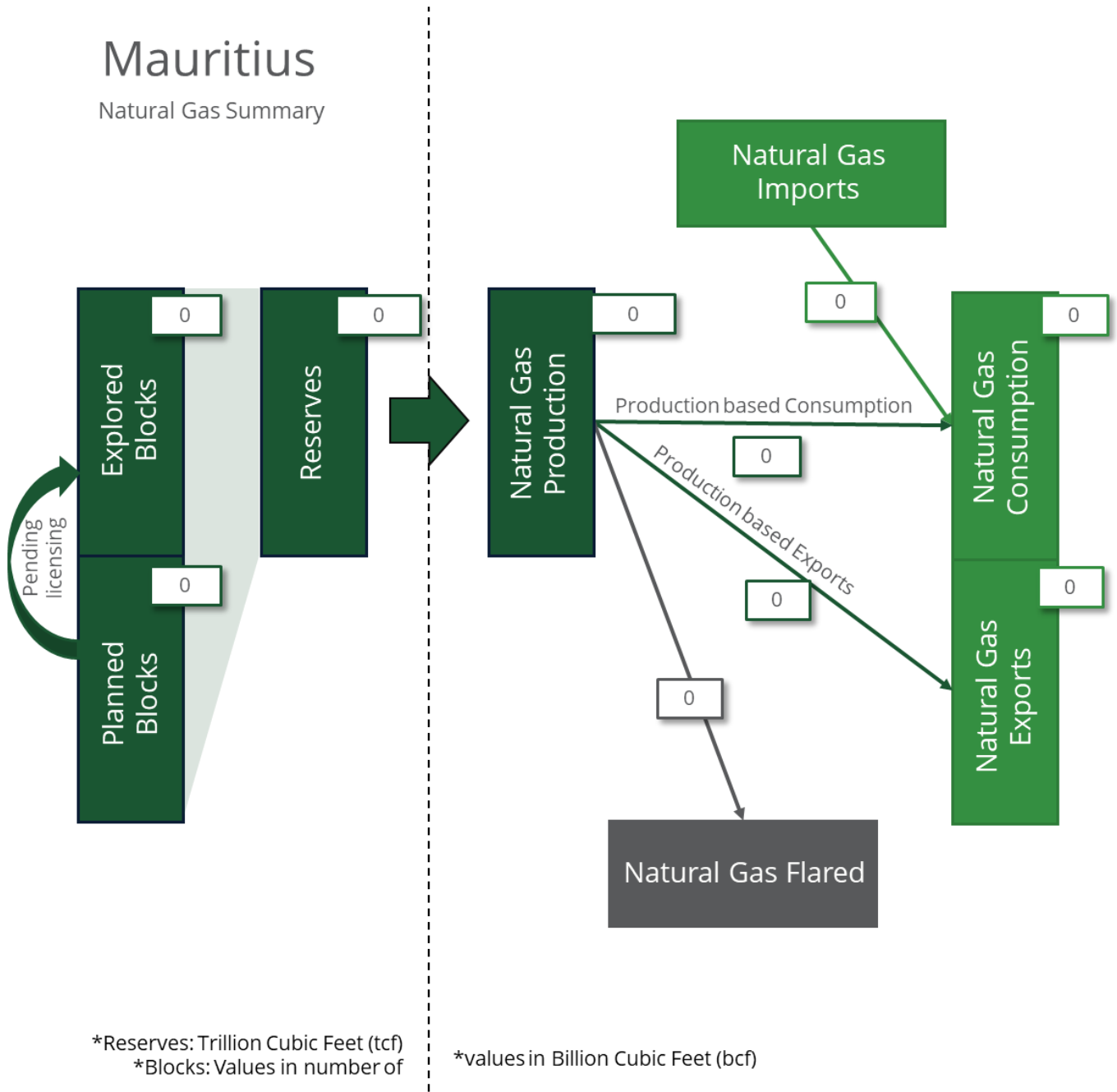


Figure 23: Mauritius Country-Specific Natural Gas Flow Infographic

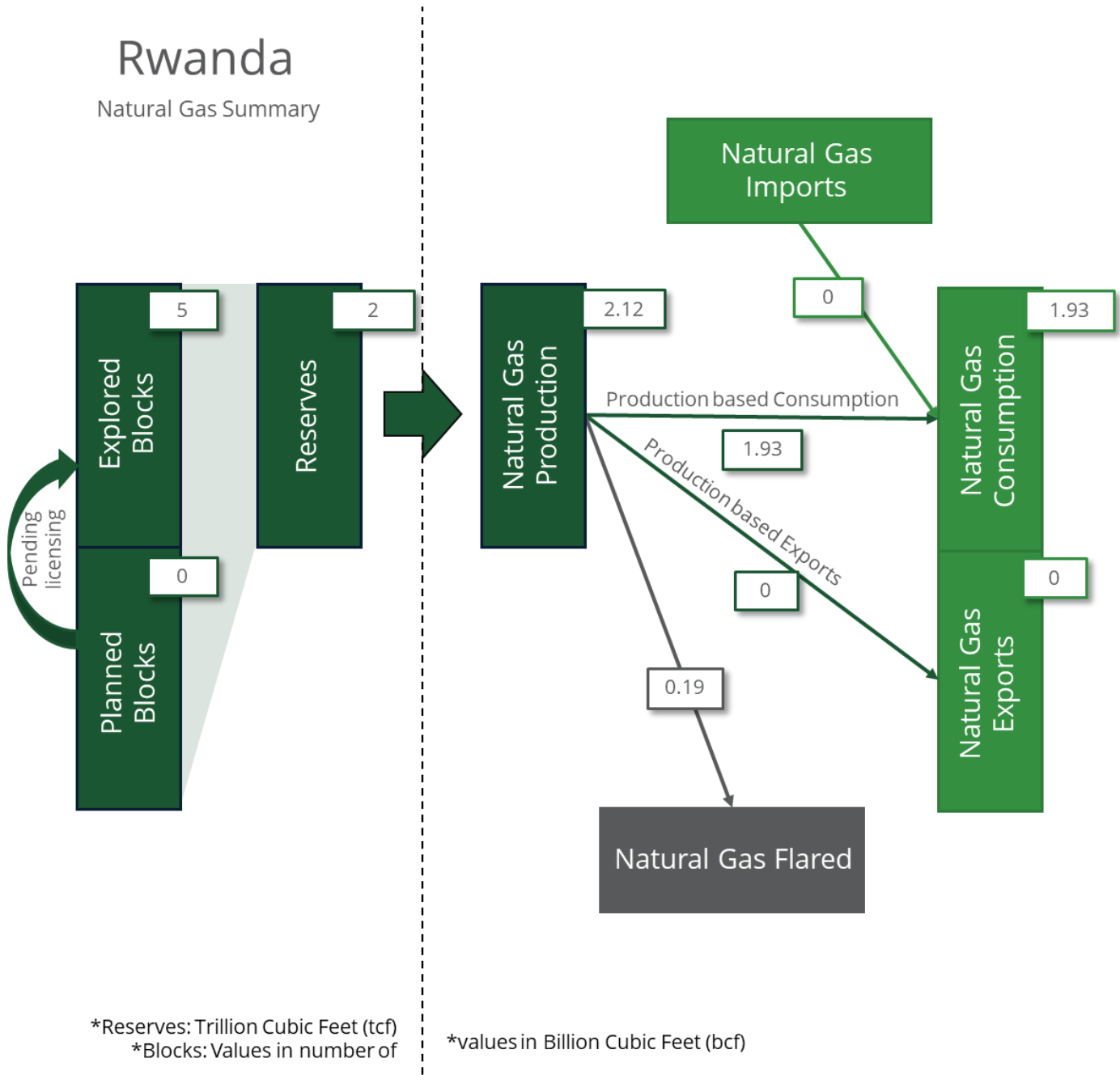


Figure 24: Rwanda Country-Specific Natural Gas Flow Infographic

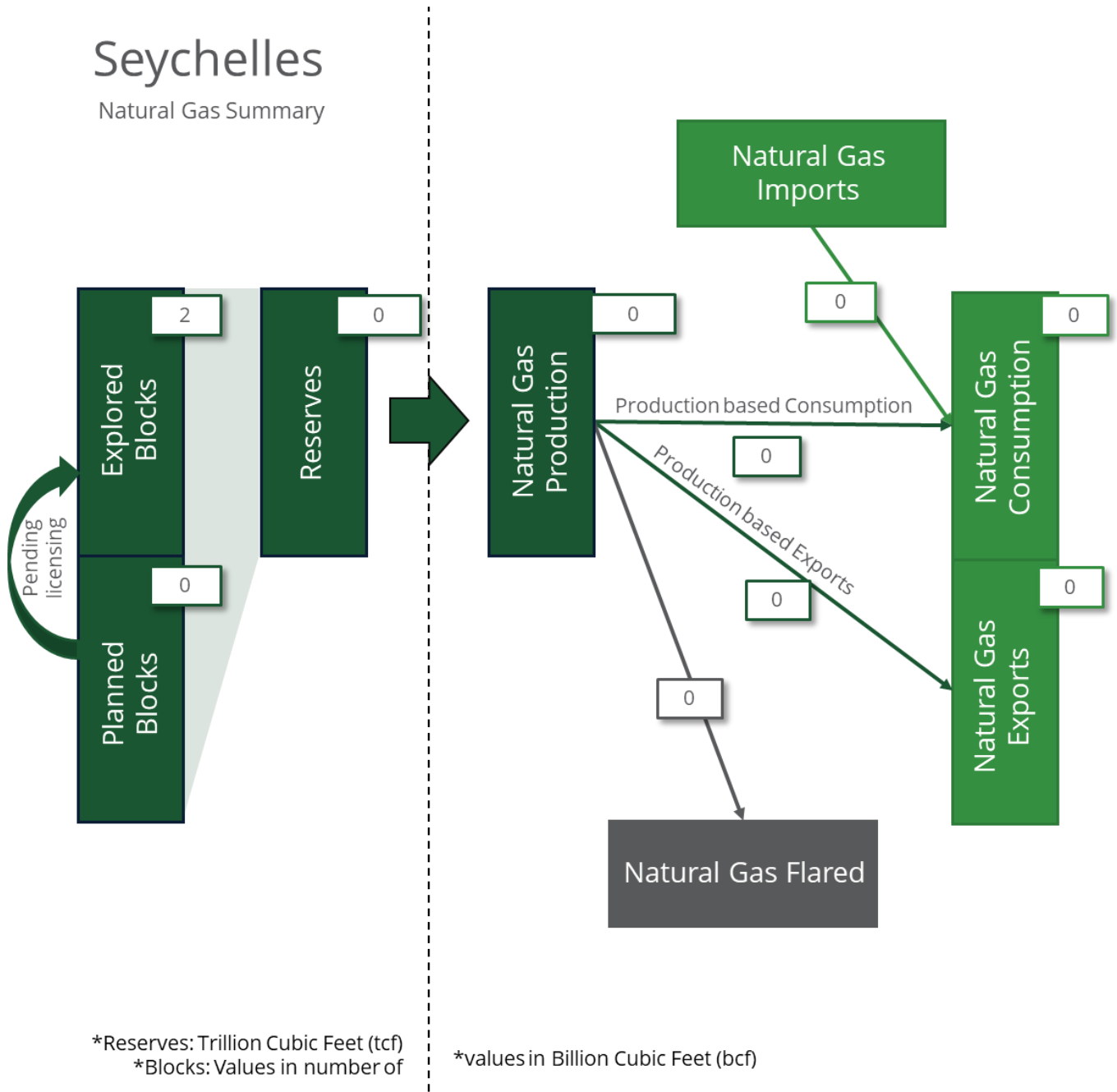


Figure 25: Seychelles Country-Specific Natural Gas Flow Infographic

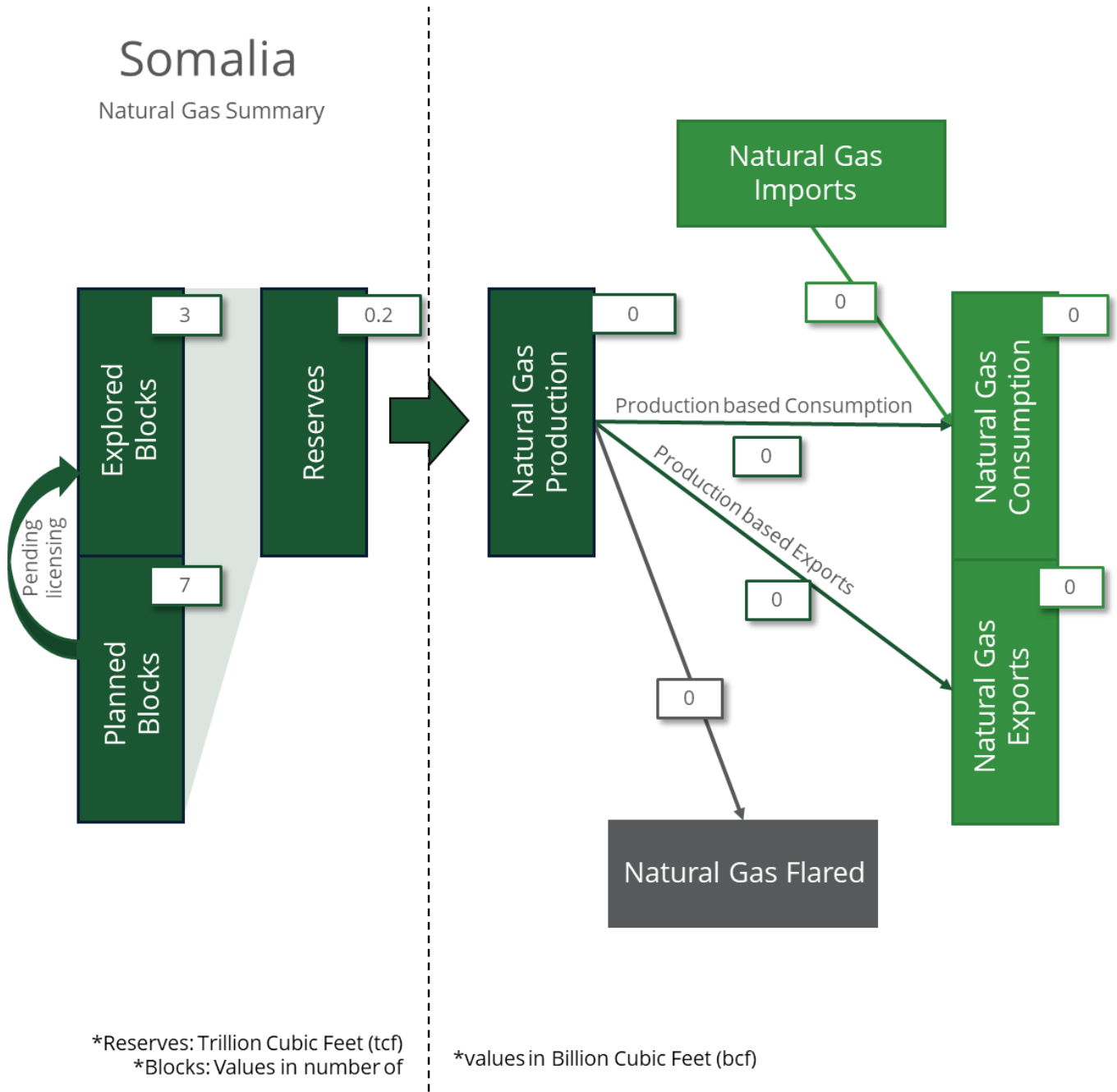


Figure 26: Somalia Country-Specific Natural Gas Flow Infographic

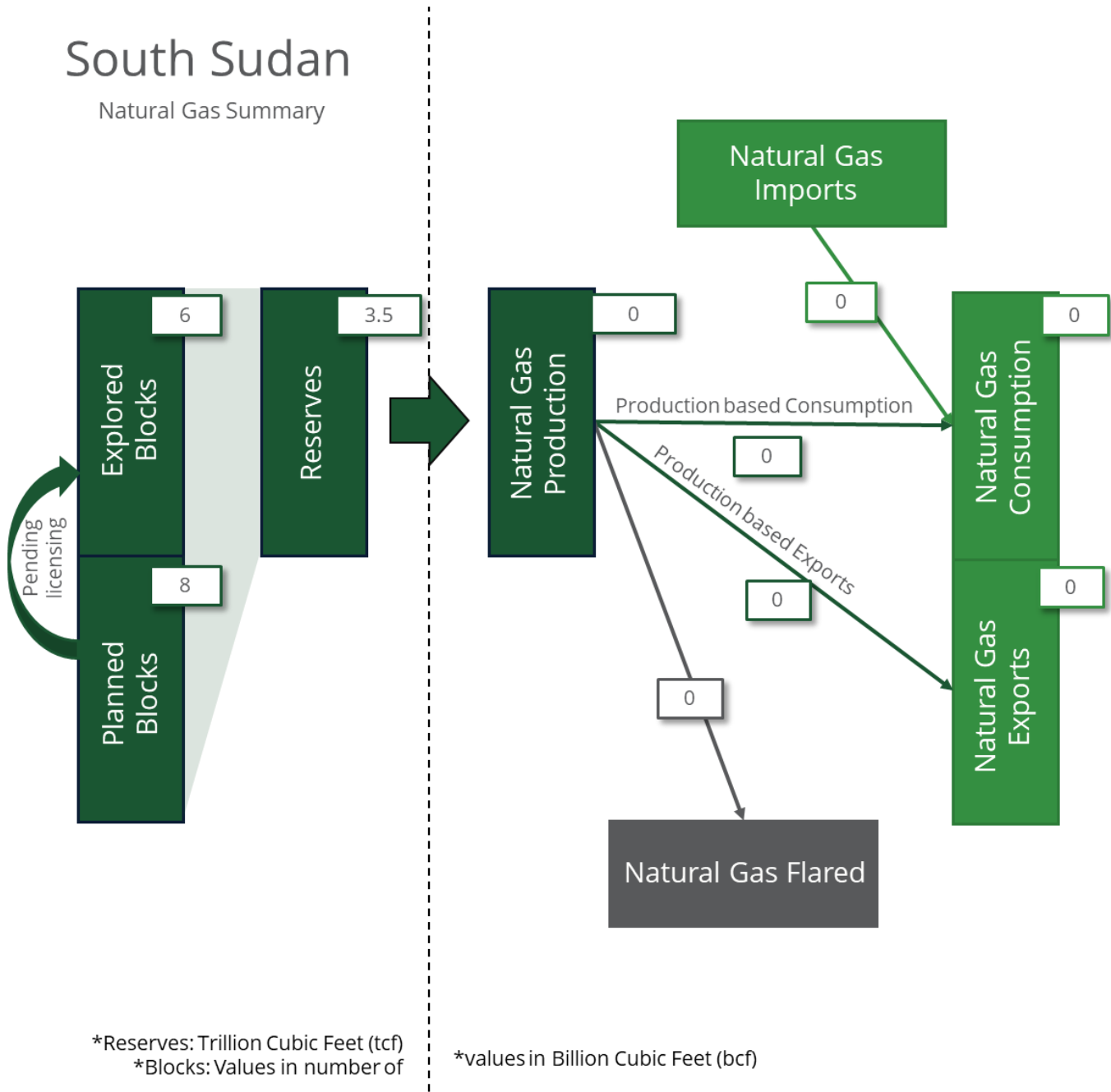


Figure 27: South Sudan Country-Specific Natural Gas Flow Infographic

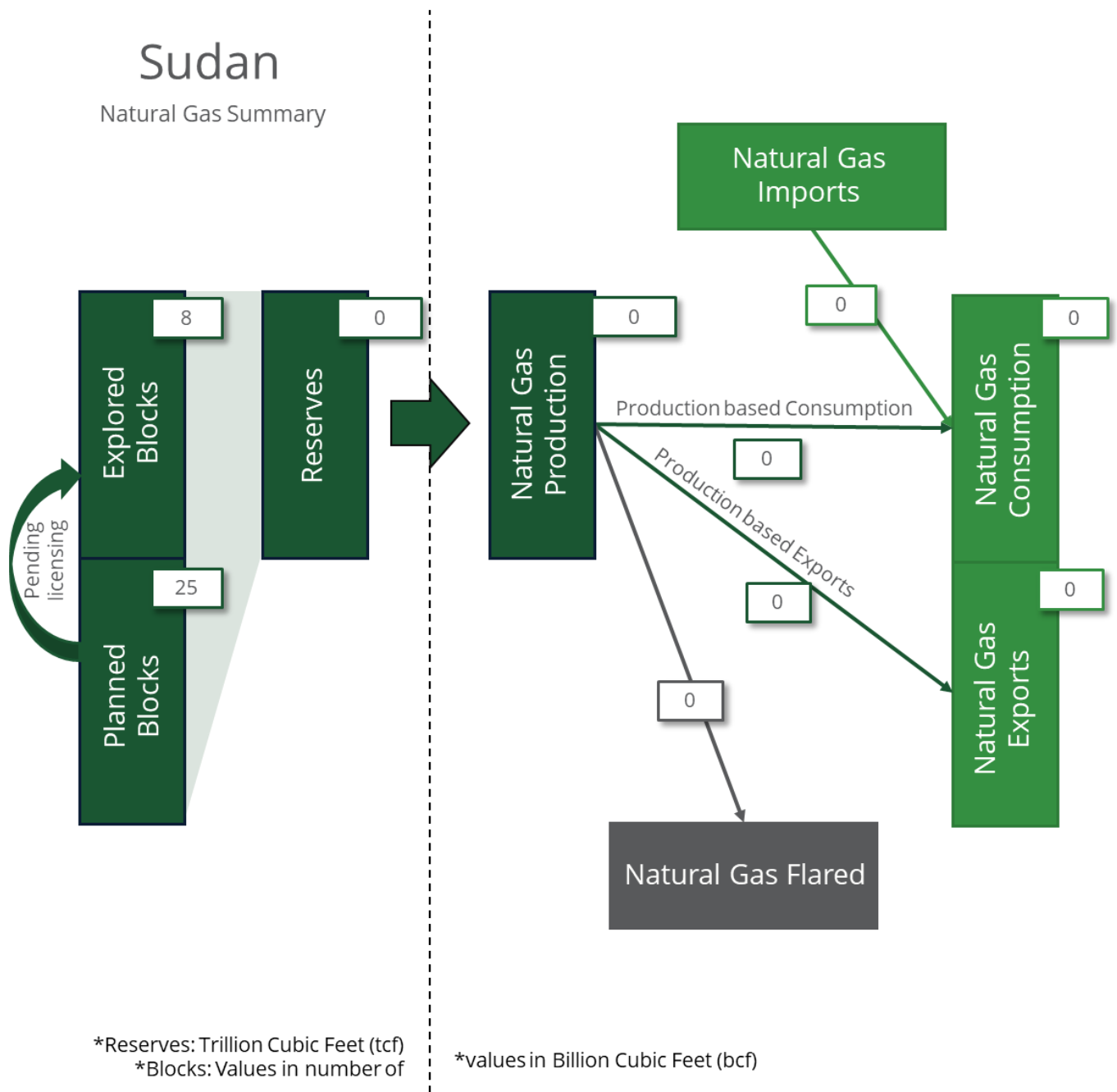


Figure 28: Sudan Country-Specific Natural Gas Flow Infographic

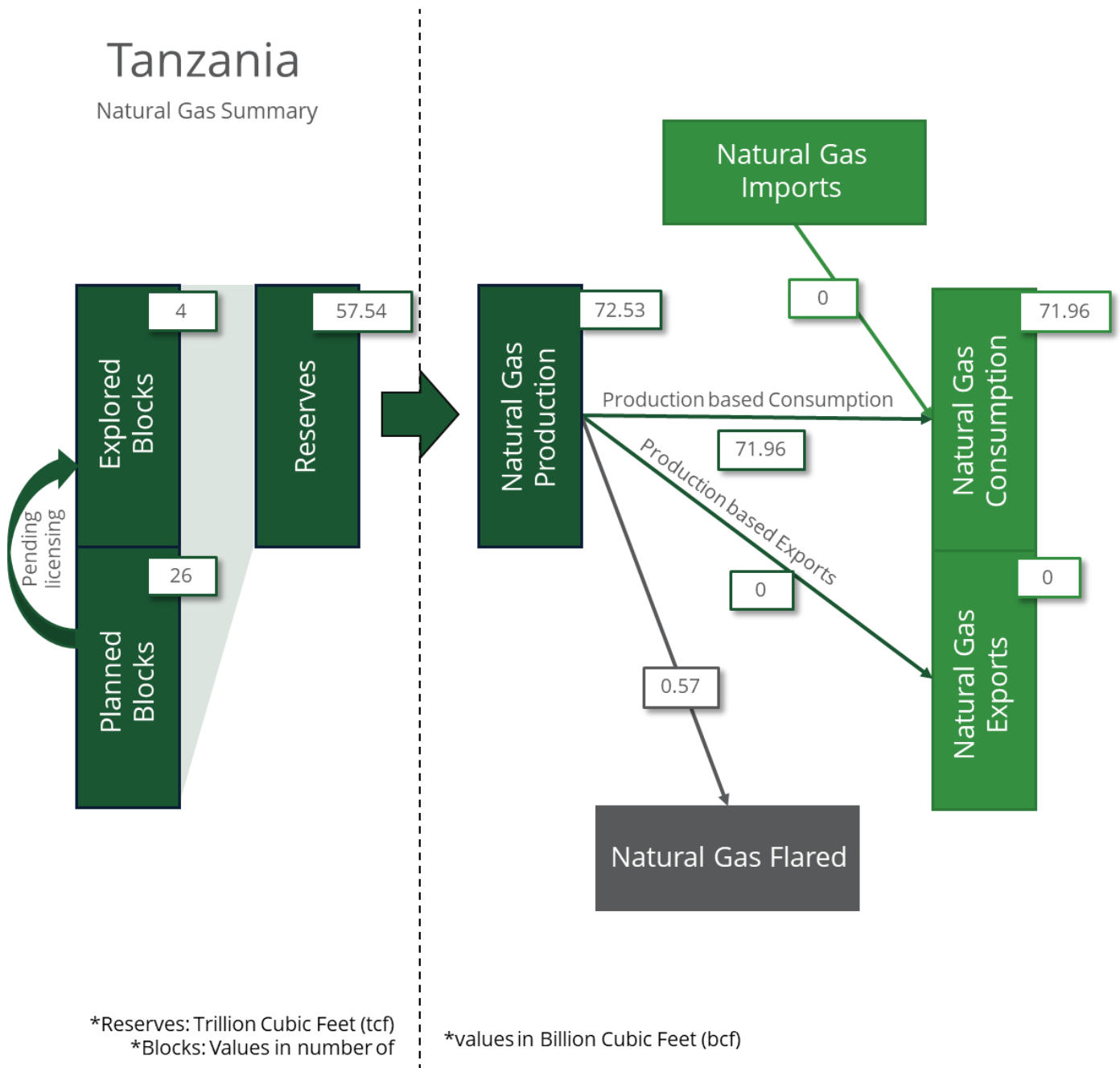


Figure 29: Tanzania Country-Specific Natural Gas Flow Infographic

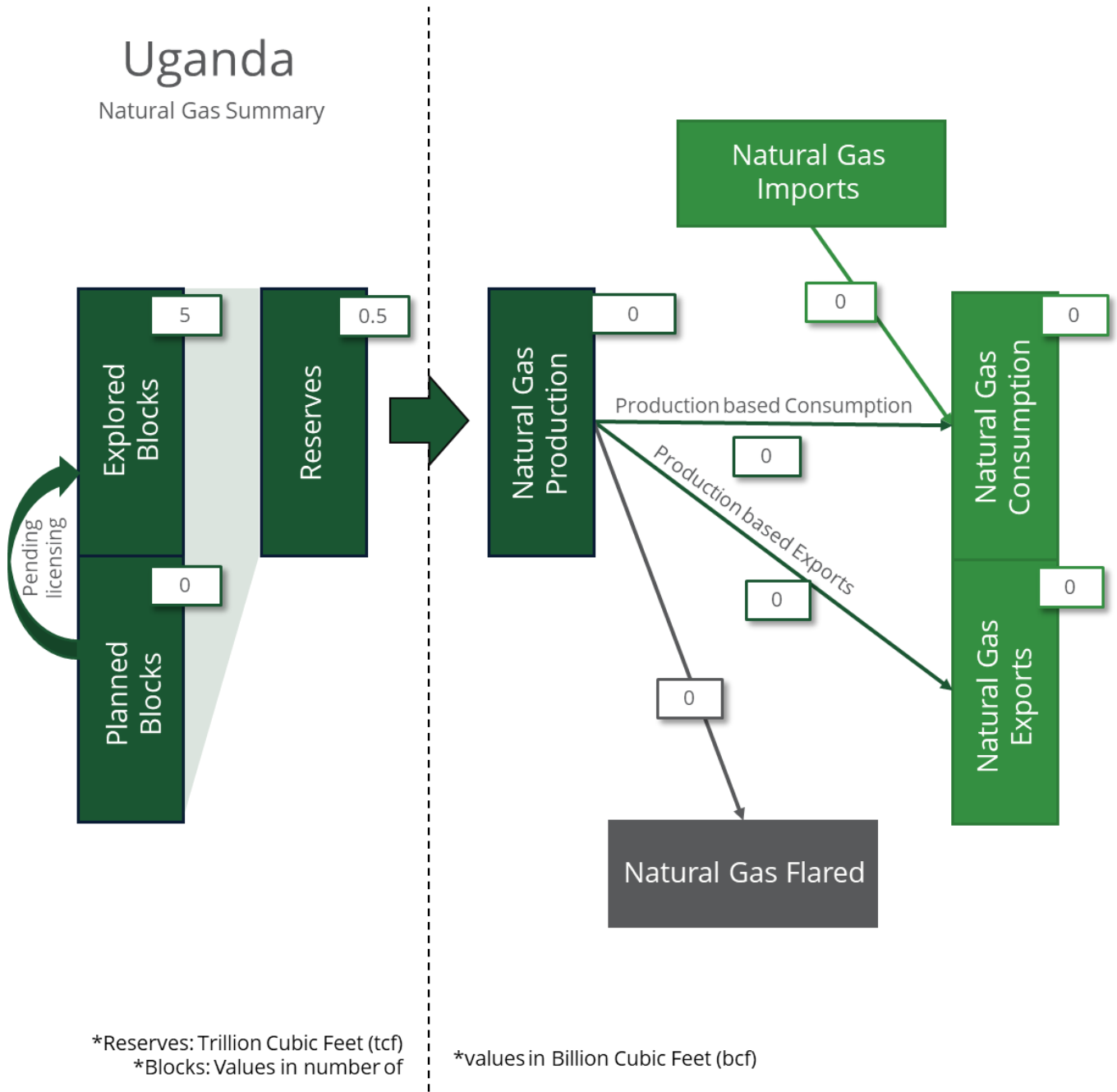


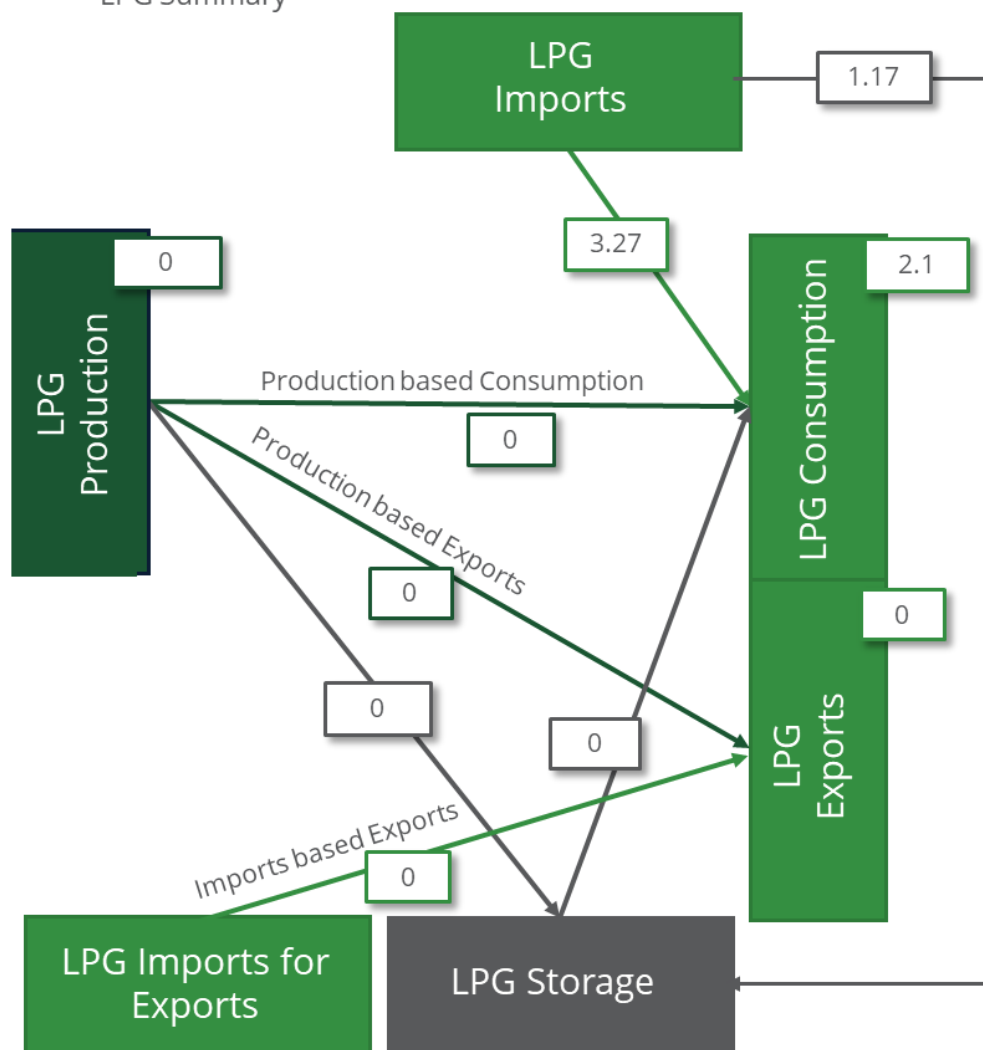
Figure 30: Uganda Country-Specific Natural Gas Flow Infographic

Liquefied Petroleum Gas Flow Infographics



Burundi

LPG Summary

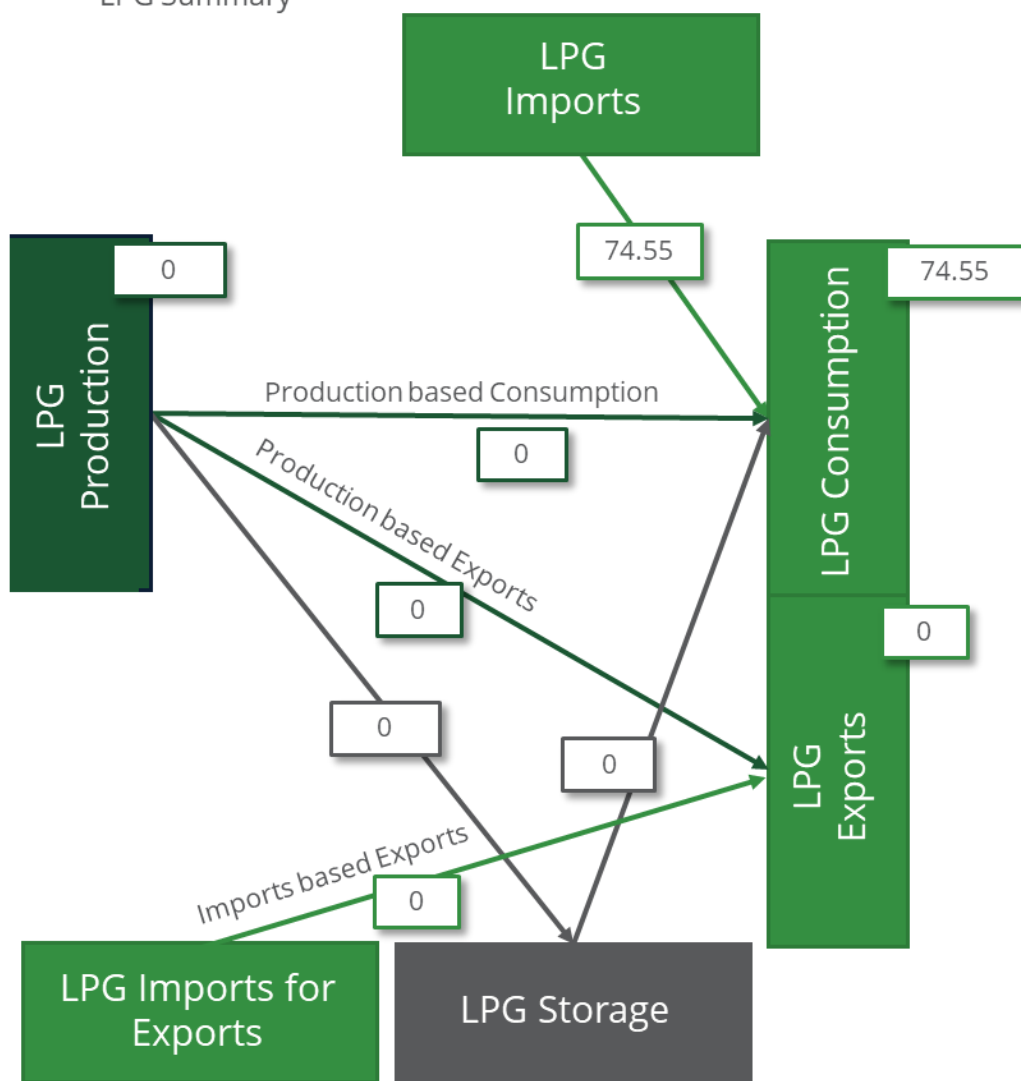


*values in Tonnes per day (tpd)

Figure 31: Burundi Country Specific LPG Flow Infographic

Comoros

LPG Summary

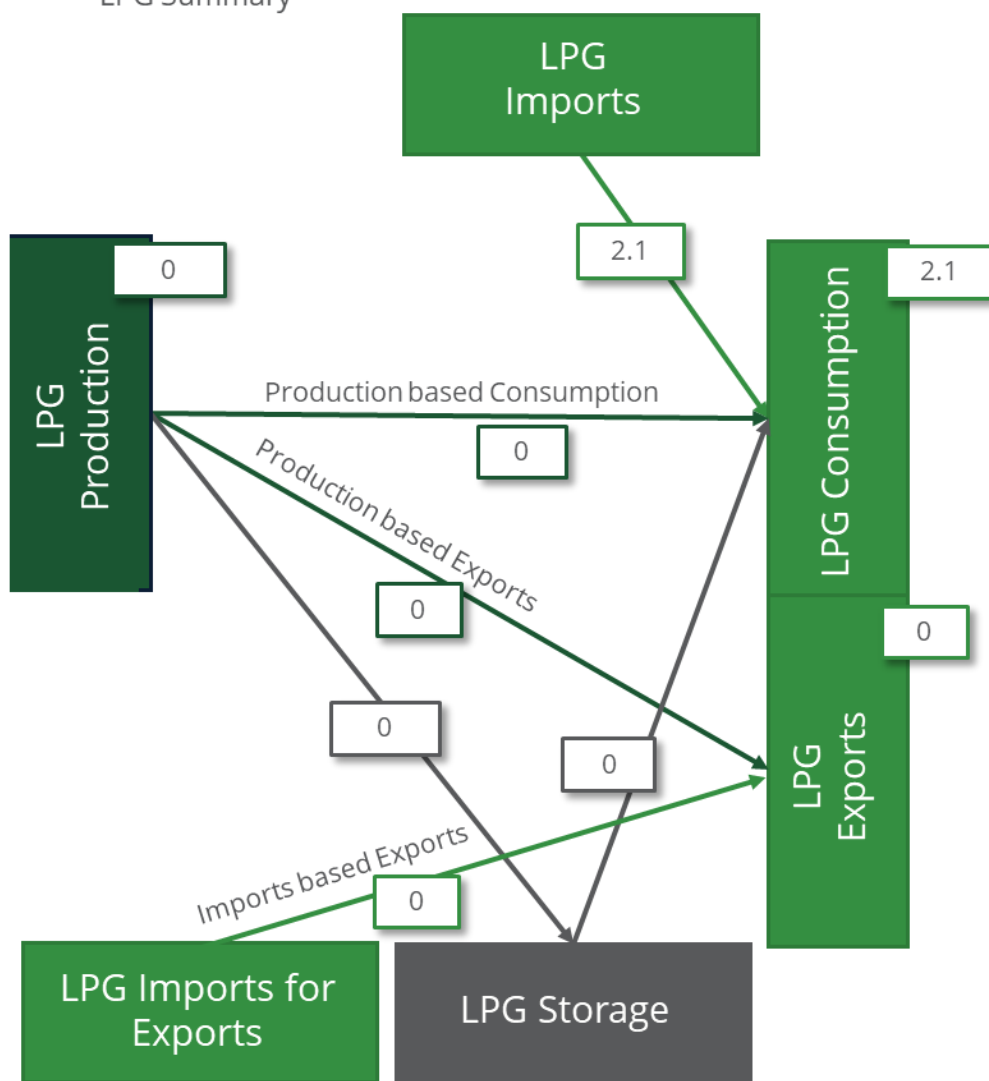


*values in Tonnes per day (tpd)

Figure 32: Comoros Country Specific LPG Flow Infographic

Djibouti

LPG Summary

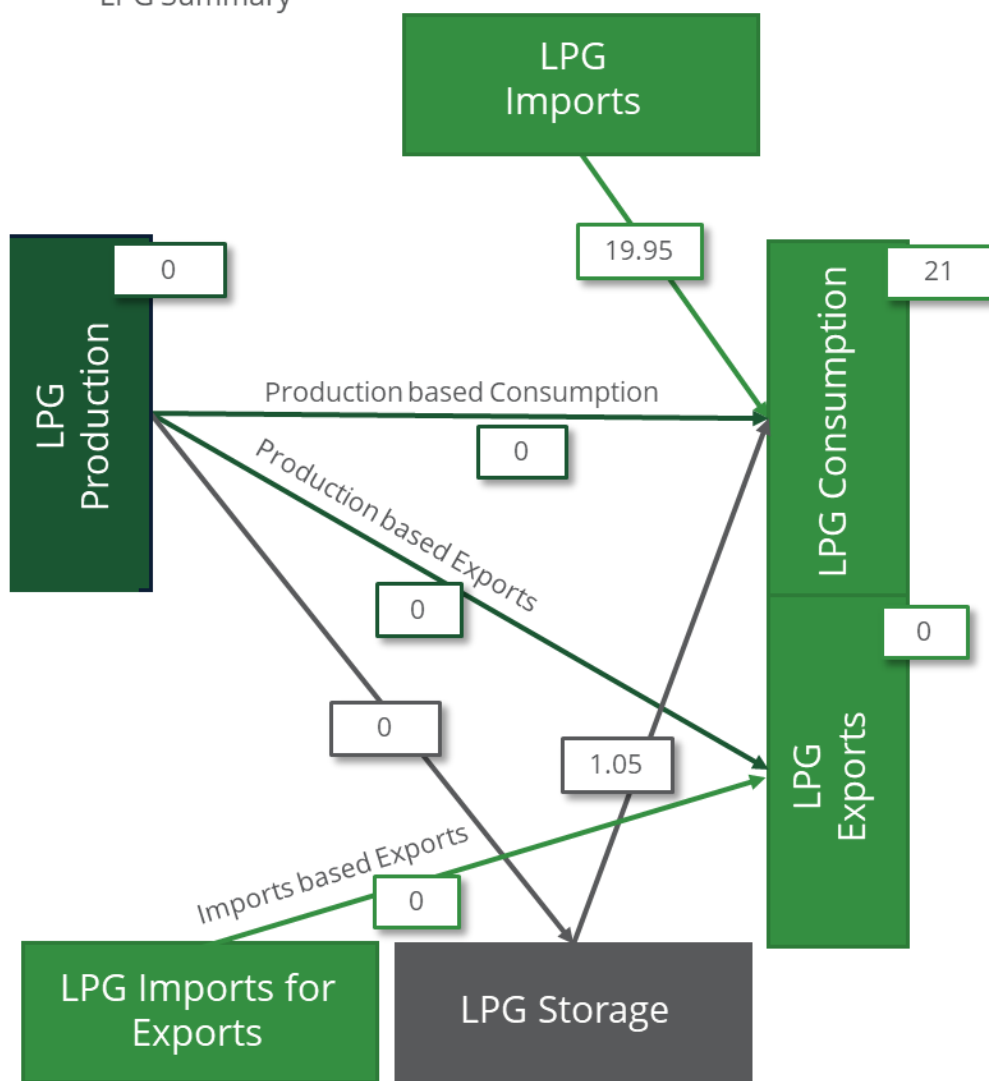


*values in Tonnes per day (tpd)

Figure 33: Djibouti Country Specific LPG Flow Infographic

Eritrea

LPG Summary

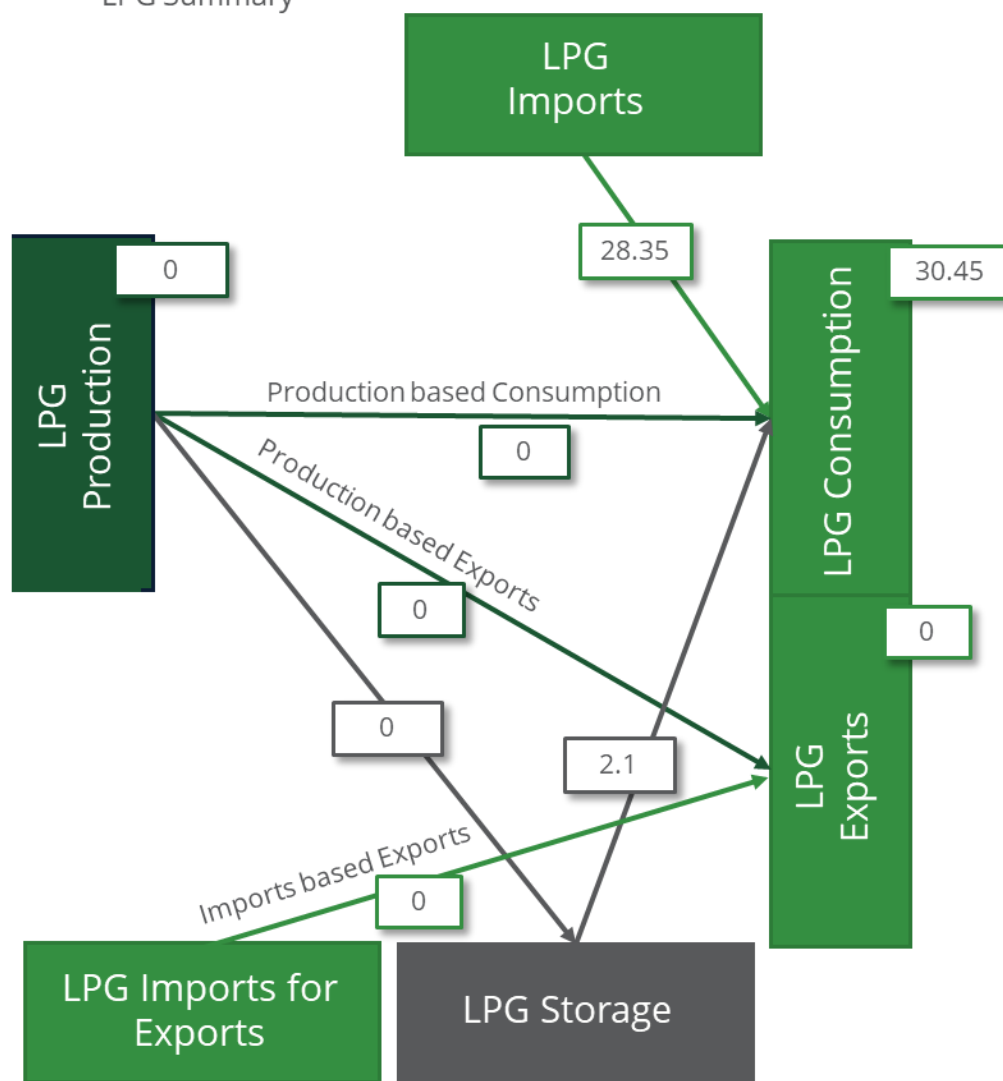


*values in Tonnes per day (tpd)

Figure 34: Eritrea Country Specific LPG Flow Infographic

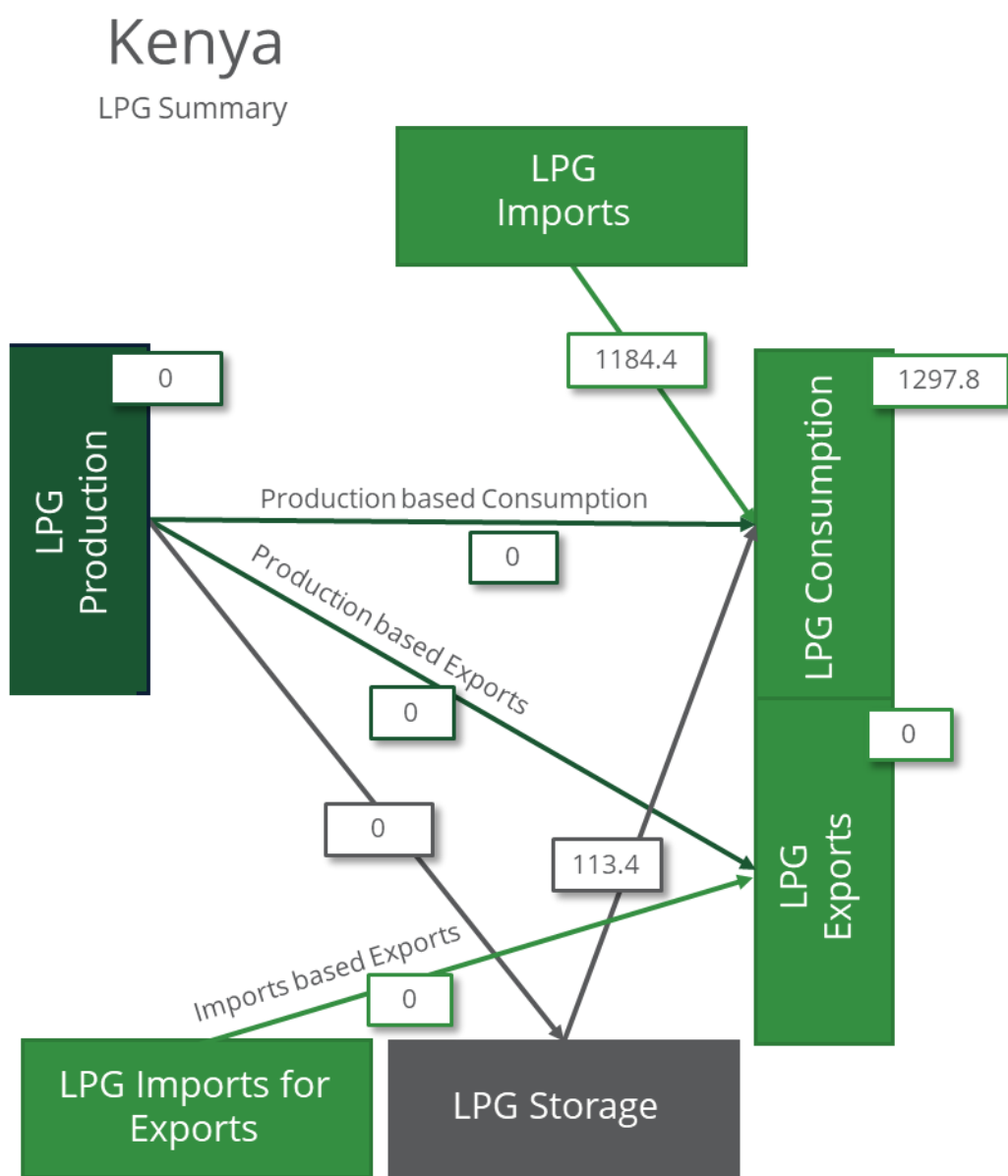
Ethiopia

LPG Summary



*values in Tonnes per day (tpd)

Figure 35: Ethiopia Country Specific LPG Flow Infographic

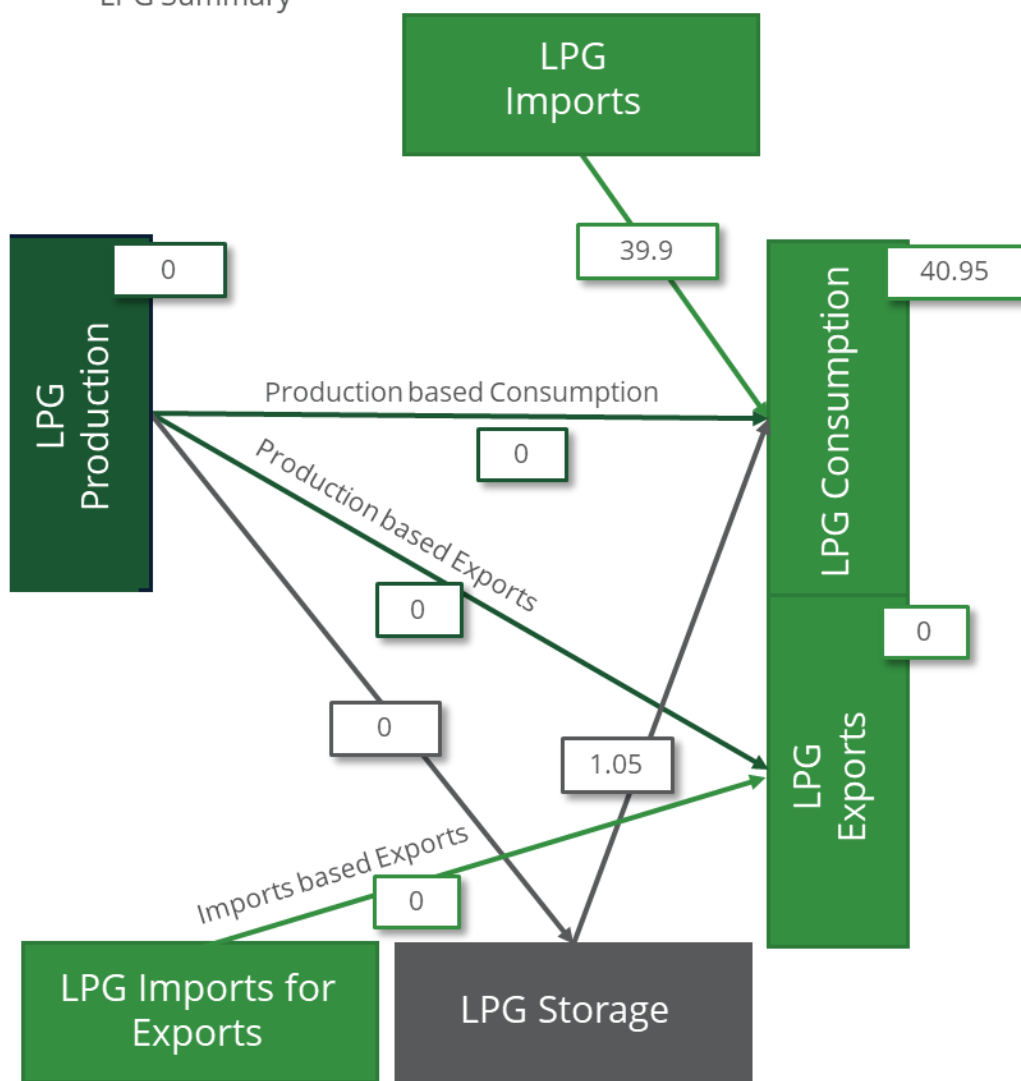


*values in Tonnes per day (tpd)

Figure 36: Kenya Country Specific LPG Flow Infographic

Madagascar

LPG Summary

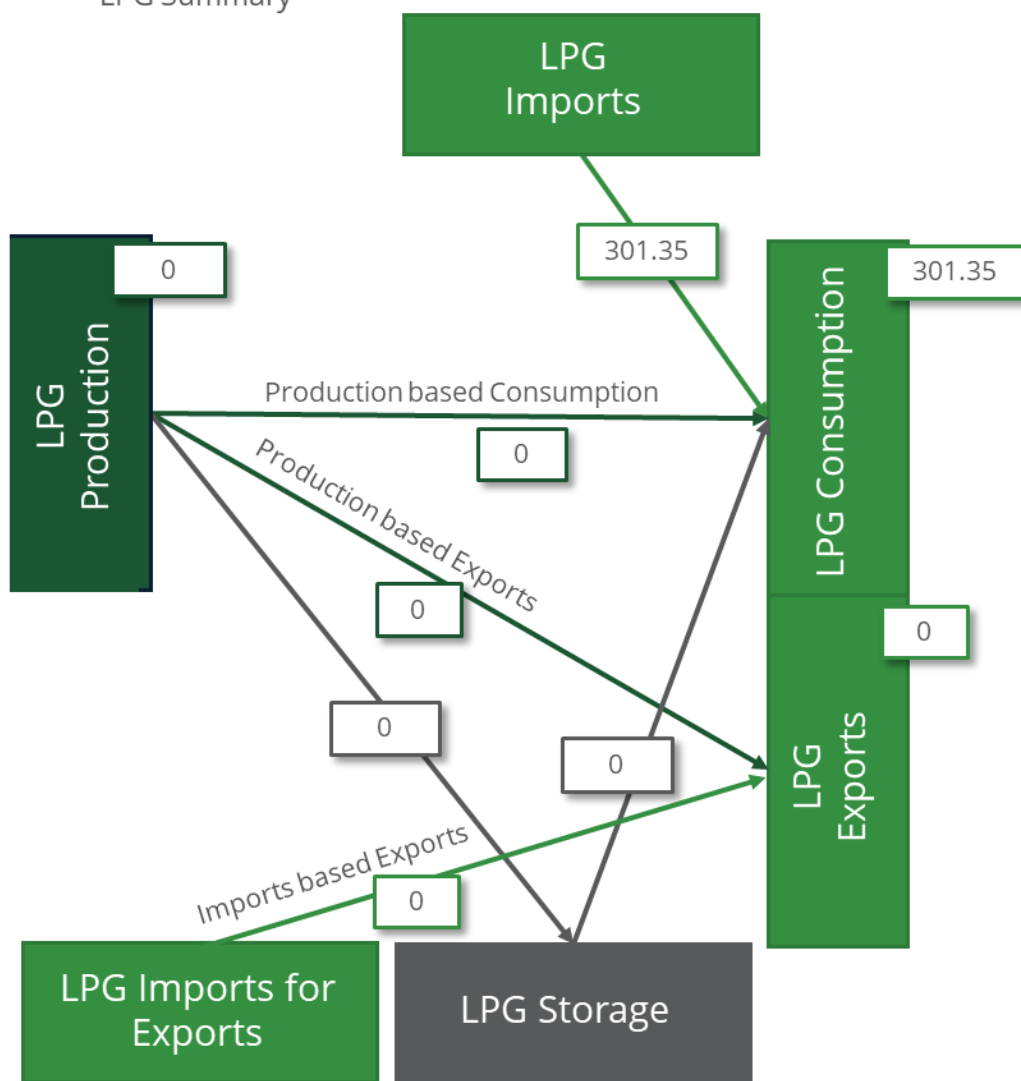


*values in Tonnes per day (tpd)

Figure 37: Madagascar Country Specific LPG Flow Infographic

Mauritius

LPG Summary

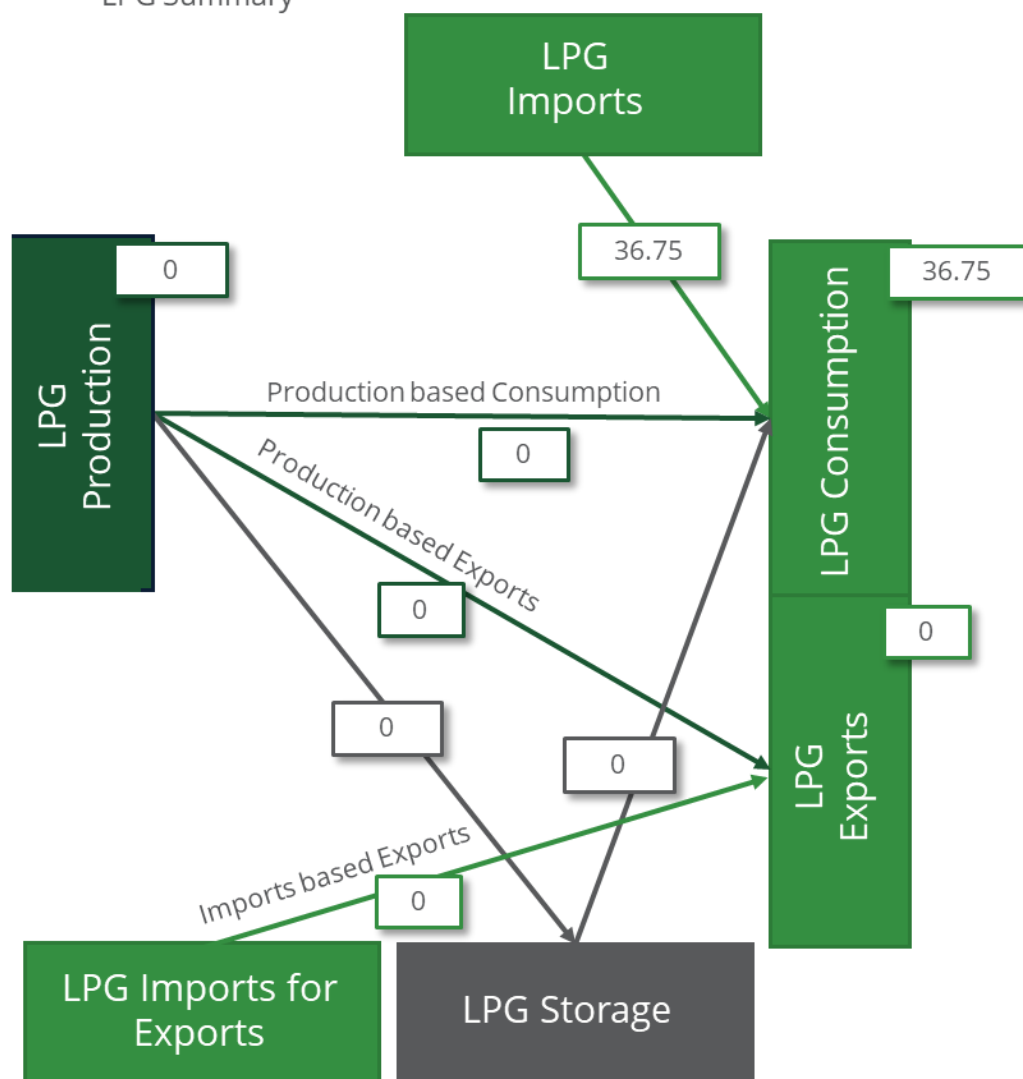


*values in Tonnes per day (tpd)

Figure 38: Mauritius Country Specific LPG Flow Infographic

Rwanda

LPG Summary

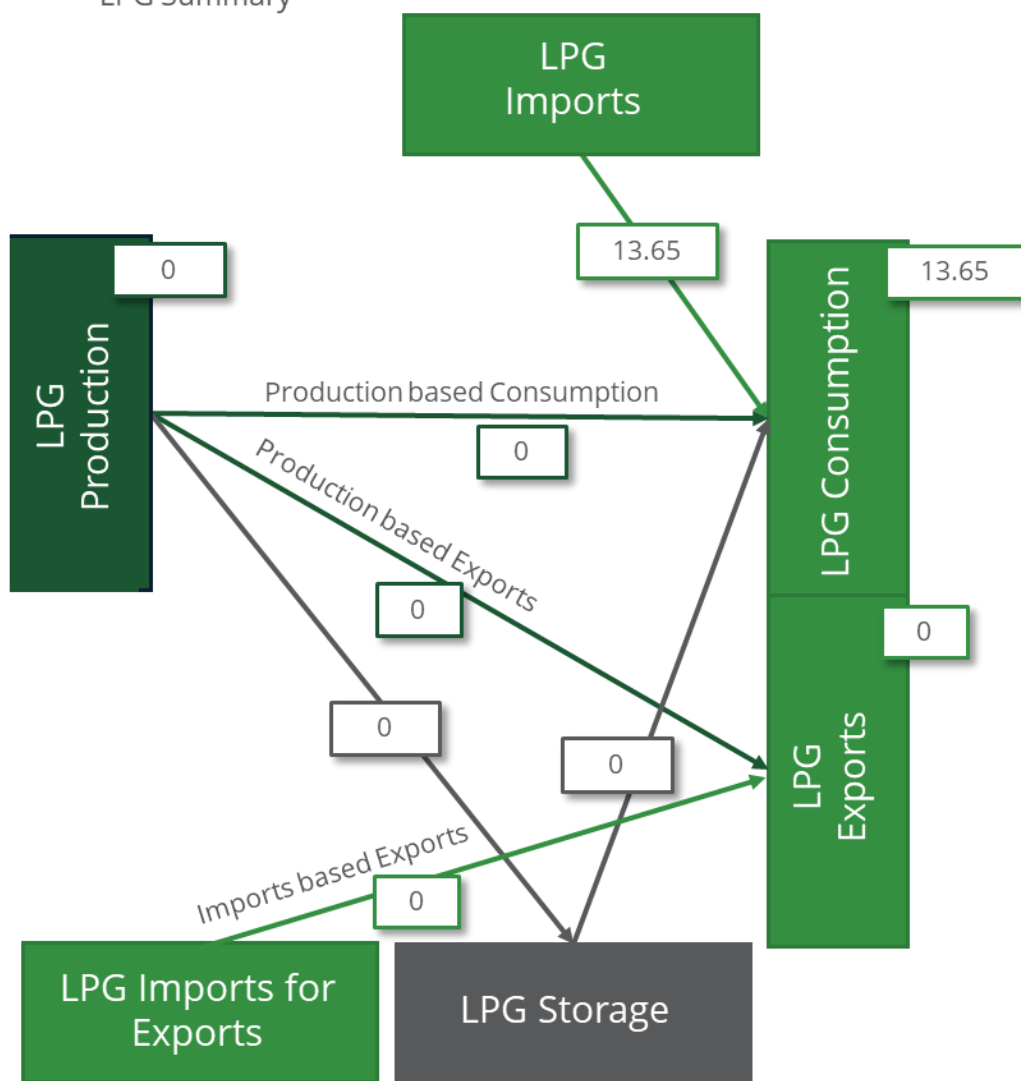


*values in Tonnes per day (tpd)

Figure 39: Rwanda Country Specific LPG Flow Infographic

Seychelles

LPG Summary

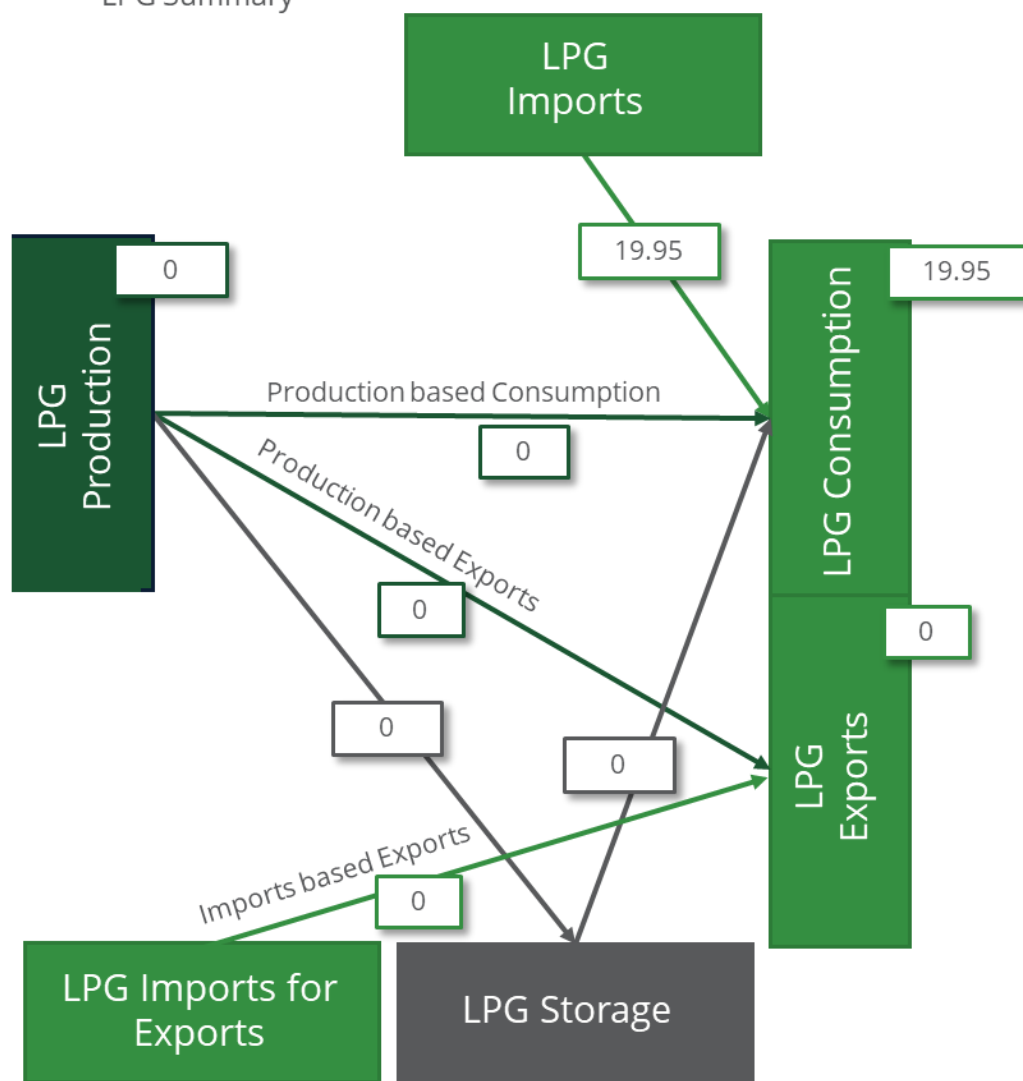


*values in Tonnes per day (tpd)

Figure 40: Seychelles Country Specific LPG Flow Infographic

Somalia

LPG Summary

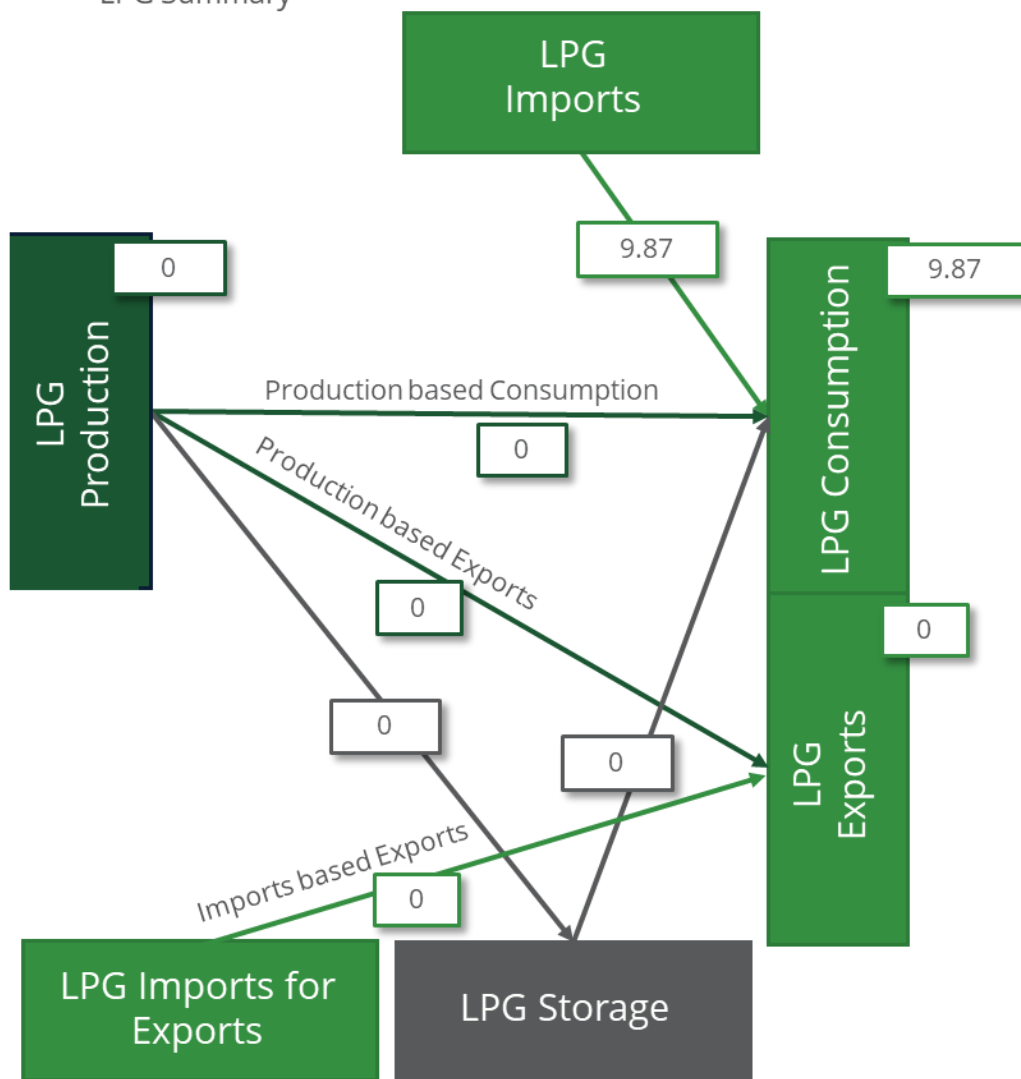


*values in Tonnes per day (tpd)

Figure 41: Somalia Country Specific LPG Flow Infographic

South Sudan

LPG Summary

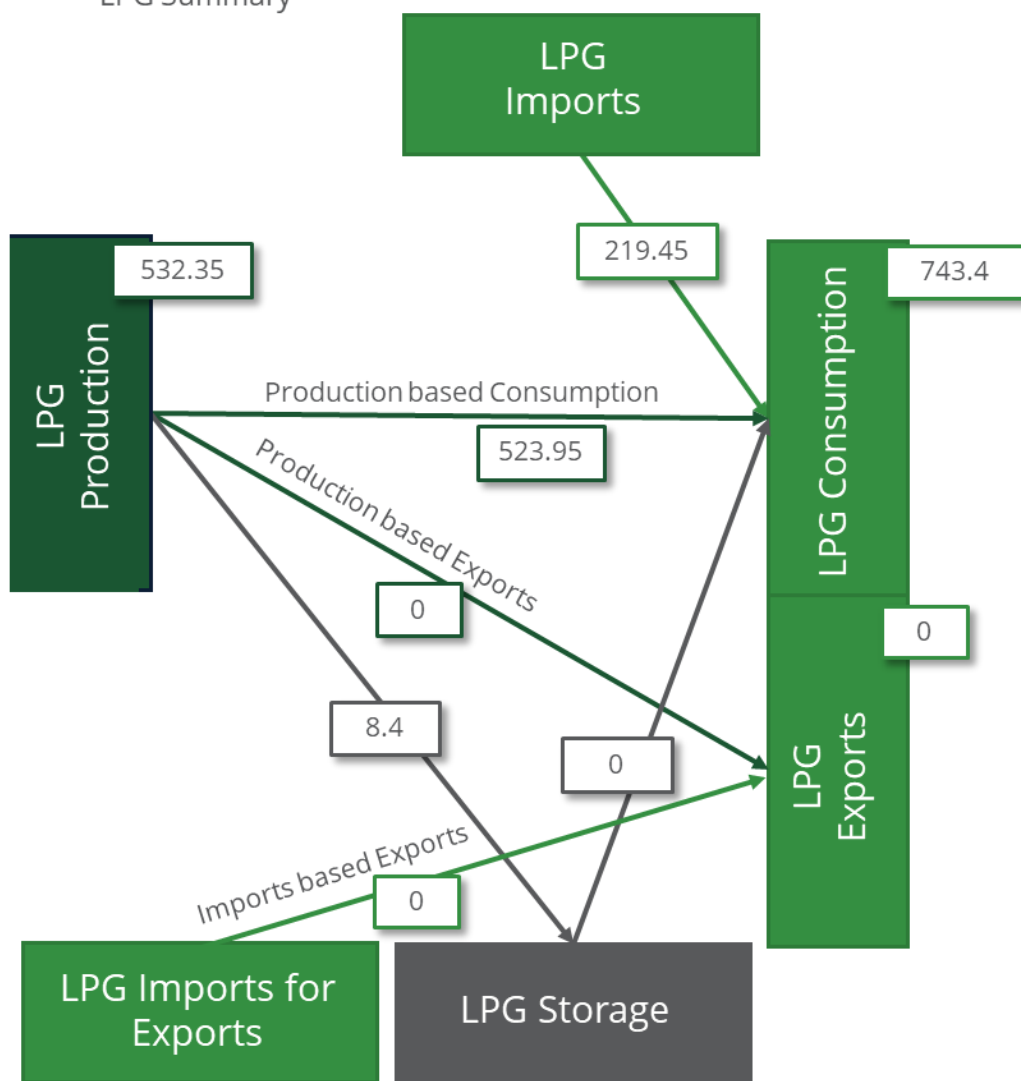


*values in Tonnes per day (tpd)

Figure 42: South Sudan Country Specific LPG Flow Infographic

Sudan

LPG Summary

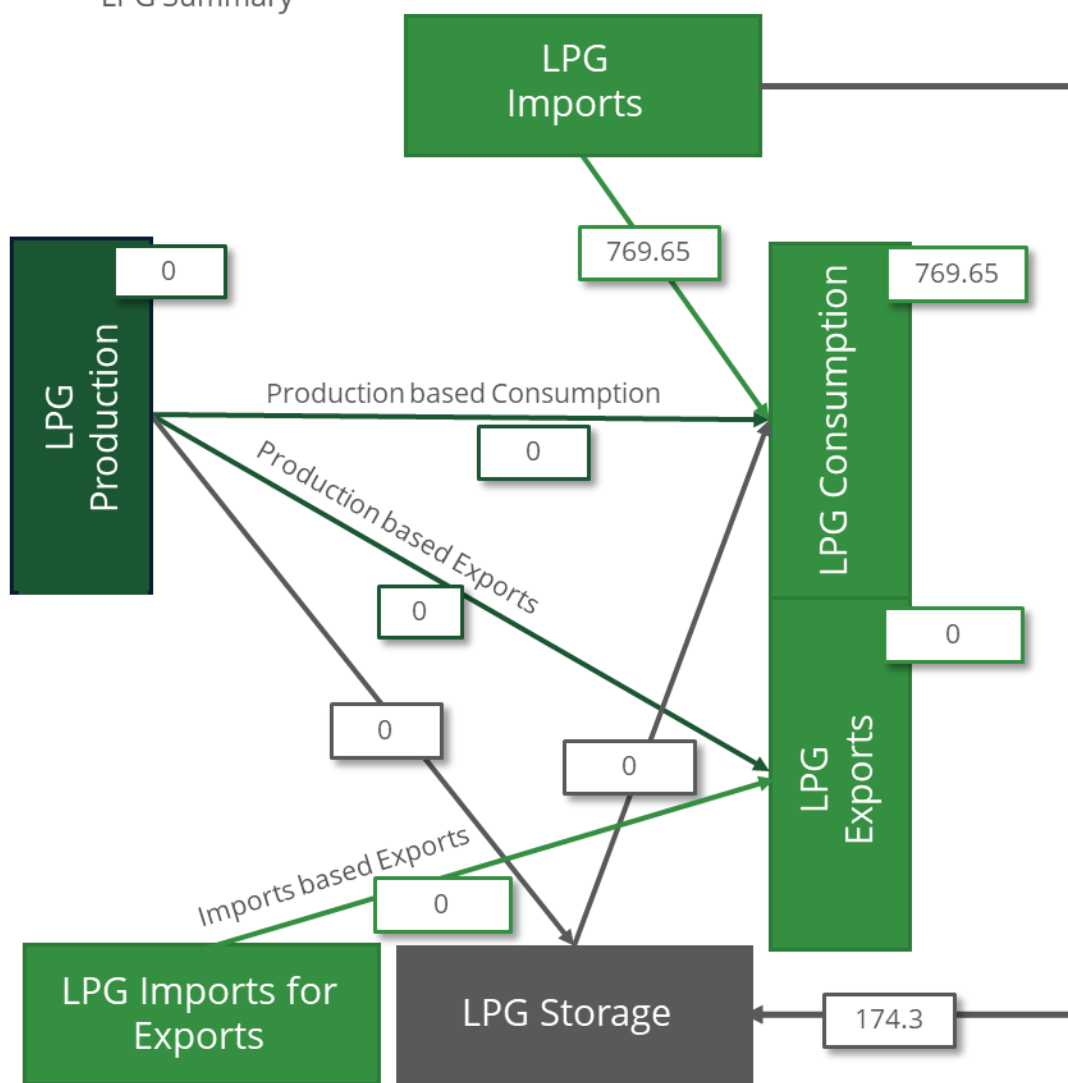


*values in Tonnes per day (tpd)

Figure 43: Sudan Country Specific LPG Flow Infographic

Tanzania

LPG Summary

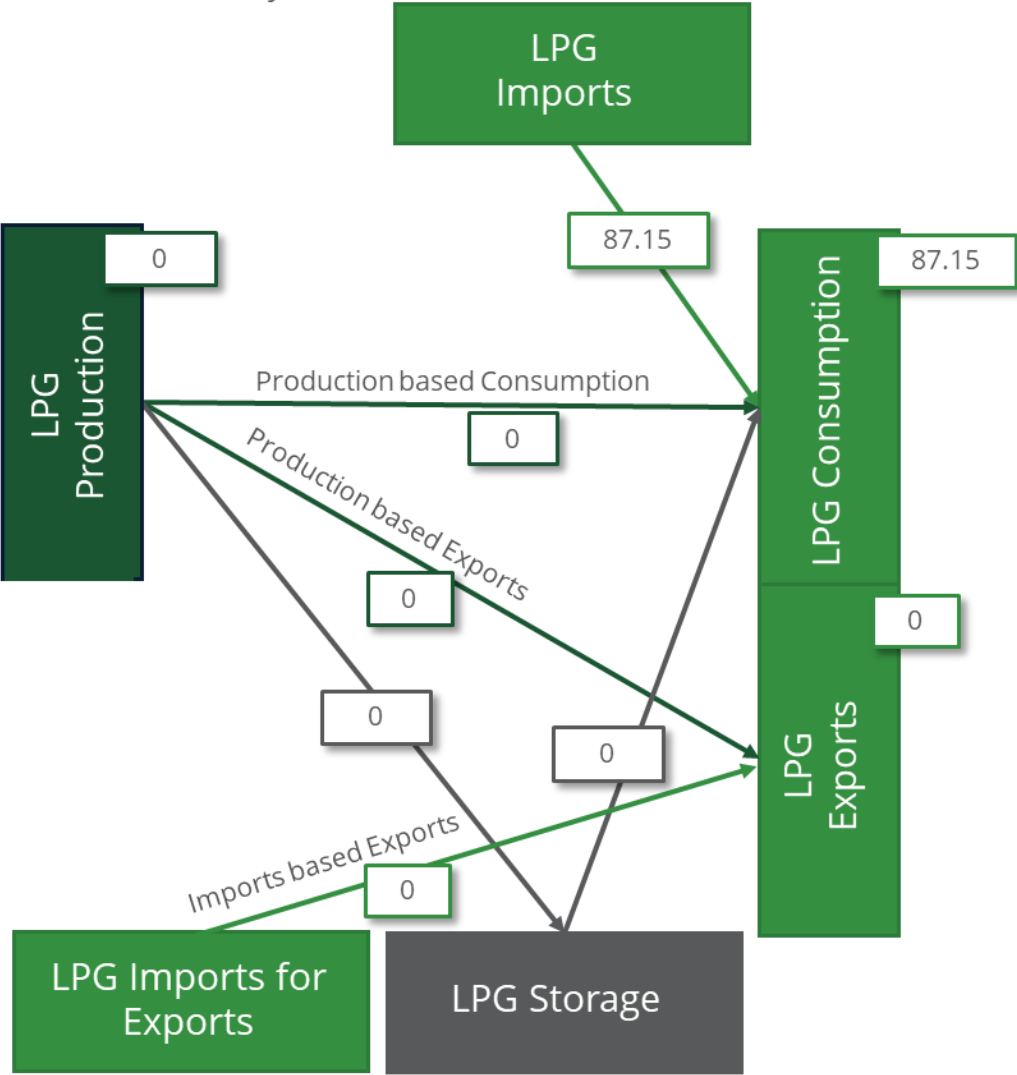


*values in Tonnes per day (tpd)

Figure 44: Tanzania Country Specific LPG Flow Infographic

Uganda

LPG Summary



*values in Tonnes per day (tpd)

Figure 45: Uganda Country Specific LPG Flow Infographic