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**Implications of Mothballing National Infrastructure: A Critical Review of the  
Central Mindanao Airport**

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**Abstract**

This review rationalizes scientific methodology as a critical tool that enables confidence in the institution; by measure of a priori in the political economy. A constant shift of leadership priorities becomes abstruse because this can halt project progress, damage reputation, and move resources away from previous ones. A constant shift erodes public confidence as it disrupts policy or protocol; and wastes critical resources. The Central Mindanao Airport had been mothballed for more than two decades; therefore remains without IATA or ICAO code.

This report borrows from the 2015 Gerdal & Stingi delusion theories that explain the Berlin Brandenburg Aerodrome fiasco. Decision behaviour is examined to validate strategy by way of physical location; its conclusive is supported with a 24-month flight forecast derived by stochastic abstraction of four nearby aerodromes' mean ( $\mu$ ) aircraft movement.

Mothballing the Central Mindanao Airport denotes a change of priority by lack of leadership culpability in public procurement of infrastructure—demarcating little else *Dysfunctional A Priori*. No principled reason exists to presume that every proposition on the Central Mindanao Airport must be knowable. Subsequently, it is a classic case of strategic misrepresentation defining institutional irrelevance and fraud. Many decisions are synthetic propositions to the Agro-Industrial zone and the Mega Cotabato economic development plan. These illustrate pure pluralist behaviour; positive bias and bounded rationality that result in delusion and deception by the correlated leadership.

Derived by stochastic abstraction, the flight forecast prove modest and reasonable for a simple operation of Utility Transport Aerodrome for the community. The facility can evolve over time, into a key node in the transportation network of the Greater Cotabato region. By far—its present circumstance there is no existing demand to justify increased aerodrome capacity. The impression of an international alternate aerodrome places considerable risk on border protection in a scale of national security; apart from the massive exhaustion of limited resources

**Keywords:** Leadership culpability, a priori, mothballing infrastructure, decision behaviour, stochastic abstraction, political economy, Central Mindanao Airport

## **1. Introduction**

### *1.1 Mothballed 20 years*

The objective of this review is to apply scientific methodology in the review of decision failure; therefore set corrective measures to avoid the same: A Priori. More particularly, to set a frame of reference for public procurement of infrastructure, which can be used by the local Government units. Insights gathered from this article inform policy; a framework can be institutionalized, and over time can develop confidence in the Institution. By so; situations like this can be avoided: Central Mindanao Airport had been mothballed for more than twenty years—and up to now it remains without IATA or ICAO code.



Figure 1 Mothballed M'lang Airport (M'lang Government, 2023)

### *1.2 National Infrastructure Capital Investments*

Aerodromes are well-thought-out investments having complex clusters of related components and essential services. Aerodromes underpin civilization; establishing key nodes and linkages into a large transportation system to shape an economic backbone. Aerodromes are major gateways requiring special border protection. Countries such as England, place these types of capital investments under the National Protective Security Authority /NPSA (Crown Copyright, 2024) while in Singapore, the protection of national infrastructure has been mandated by the Parliament in 2018 (Keat, 2023). Correspondingly, Germany seats its critical-infrastructure protection under the Federal Ministry of the Interior; Kristis-DachG (GMBH, 2024).

Seated as a national infrastructure, Central Mindanao Airport renders as a classic case of decision behaviour, in a circumstance bankrolled by the political economy. First expensed as a transport utility aerodrome—A basic inland facility for civilian use had been built with a runway

length of 3900 ft. /1.2 kilometres. The development amassed 92 hectares acquisitioned from the heirs of Don Tomas Buenaflor, in 2003. The airport is a segment to the larger scheme of economic transition in the Greater Cotabato region; specifically to support the Provincial Agro-Industrial Park /PAIP in a two-kilometre access road traversing the 27-hectare development (JICA, 2022). The advancement of transport logistics stem from the historical, abundant farm produce of Cotabato. The province is the concurrent food basket of Mindanao, becoming a dominant trader for coconut, coffee, tropical fruits and vegetables; and a nationwide producer of rice and corn.

Former Mindanao Development Authority Secretary Emmanuel Piñol is the mastermind of the Central Mindanao Airport, as incumbent Governor early in his political career. As an effective advocator, the proposed utility transport facility had been buttressed by the National Government through an appropriation of US\$17,887/ Philippine peso 2.895 million (MDA, 2023). Airport inaugural rites had been performed in November of 2009 by the incumbent Head of State Gloria Macapagal Arroyo and Governor Jesus Sacdalan, after completion of its runway and terminal building (Arguillas, 2023).

Following the 2010 change of hands at helm; the Central Mindanao Airport had been mothballed. The decision of incumbent Governor Emmylou Mendoza was a result of document deficiency; preventing the conveyance of land to the Department of Transportation. Notwithstanding, during the suspension of the airport operations, the Department of Transportation and Communications /DOTC stipulated BAC Resolution No P-IP-PB-2012-87 Notice of Award in December 2012; for the extension and widening of the runway and apron expansion; including the construction of a fire station building and frangible fence. The award had been issued to Vicente T. Lao Construction of Davao, in contract value of US\$1,988,539 or Philippine peso 110.291 million after bid announcement published through the months of September and October 2012.

Over the same duration of suspension, a one-off exception occurred in February of 2016. The Central Mindanao Airport had been put to operation for cloud seeding activities, and the Cotabato Governor Mendoza requested authorization from the Civil Aviation Authority of the Philippines /CAAP in a purpose-specific clearance (Arguillas, 2023). By 217, a comprehensive study on the Central Mindanao Airport had been conducted to determine the airport development requirements at optimum civilian aerodrome utilization.

As a result of the political economy, the Department of Transportation /DOTr engaged the consultation services of the Engineering and Development Corporation of the Philippines /EDCOP (see Appendix D), in joint venture with Schema Konsult (see Appendices B); for the formulation of the CMA Master Development Plan. The study examined the feasibility of the Central Mindanao Airport on the short-term, medium-term and long-term; it included the completion of an Environmental Impact Assessment /EIA (Sarmiento, 2023); extending to the formulation of a phased financial scheme (see Appendix B).

Earlier work completions on the Central Mindanao Airport between 2004 and 2009 defined the development of a runway strip with dimension 2100m x 300m, a concrete runway with dimension 1660m x 30m, and a single concrete taxiway with dimension 115m x 18m. The built passenger terminal had a footprint of 660 sq. meters, the apron occupied 1200 sq. meters and the Fire Station building completed two bays. Governor Mendoza took up three terms in a nine-year rule.

This manuscript is organized in five parts. The first part which is the introduction includes a background on the twenty years of the mothballed aerodrome, and explains the importance of an aerodrome as one type of national infrastructure capital investment. A phased masterplan development programme on the Central Mindanao Airport is recounted, and is followed with a list of other dysfunctional a priori of ghost airports. Part one is summarised in the study hypothesis that points at Strategic Misrepresentation.

The second part defines the study methodology, and looks into decision theory. Decision behaviour is outlined in both pluralist and reductionist behaviours. A priori reasoning is elaborated by mathematical rigour of stochastic abstraction, that is explained in part 3 & 4 of the study: results and discussion. Part five of the manuscript articulates the conclusion reached.

### *1.3 Phased Masterplan Development*

Over the 2019 change of hands at helm; Cotabato Governor Nancy Catamco sought intervention of the Palace, as regards the airworthiness of CMA. Then incumbent Head of State Rodrigo Duterte delegated Senator Bong Go to expedite the task (M'lang, 2023). Effectively, Lawyer John Paul Zerrudo of the Provincial Legal Office concluded the Deed of Sale. Whirling hope that the facility operation can be achieved by 2020; all legal requirements of DOTr moved forward, and the final plans signed and released (Sarmiento, 2023). Appendix D presents the complete set of aerodrome plans signed by the DOTr.

In January 2020, the Mindanao Development Authority summed up its rehabilitation cost at US\$ 50.154 million or Philippine pesos 2.6 billion for logistics support across the SOCCSKSARGEN Region. The region comprised the provinces of General Santos City, South Cotabato, Cotabato, Sultan Kudarat and Sarangani (Fernandez, 2023). By November of the same year, the National Economic Development Authority (Systra Philippines, 2021) engaged the services of Systra Philippines in partnership with Angel Lazaro and Associates International—to reevaluate the facility under development by DOTr (Francisco, 2023). This undertaking in the perspective of Value Engineering /Value Analysis /VEVA construed alternative approaches is seen in Appendix C.

Up to now, the Central Mindanao Airport remains classified as a Community Aerodrome; still without IATA and ICAO code (see Appendix E).

The ICAO Aerodrome Reference Code is composed of two elements: a numeric code and a letter code. The numeric code defined the Reference Field Length among four categories; and the letter

code states the aircraft wingspan and the wheel span of the outer main gear. An ICAO Code establishes whether an aircraft can utilise the particular aerodrome. The ICAO codes are relevant for flight planning. On the other hand, an IATA airport code is a three-letter code to identify airports worldwide and form part of an official registry. An ICAO code comes in four-letters to classify aerodromes and other aviation facilities worldwide.

Table 1 ICAO numeric element (Flight Safety Foundation)

Code number	Aeroplane reference field length	Typical aeroplane
1	< 800 m	De Havilland Canada Dhc-6/Piper Pa-31
2	800 m but < 1200 m	ATR Atr-42-300/320/Bombardier Dash 8 Q300
3	1200 m but < 1800 m	Saab 340/Bombardier Regional Jet Crj-200
4	1800 m and above	Boeing 737-700/Airbus A-320

Table 2 ICAO letter element (Flight Safety Foundation)

Code letter	Wingspan	Typical aeroplane
A	< 15 m	Piper Pa-31/Cessna 404 Titan
B	15 m but < 24 m	Bombardier Regional Jet Crj-200/De Havilland Canada Dhc-6
C	24 m but < 36 m	Boeing 737-700/Airbus A-320/Embraer Erj 190-100
D	36 m but < 52 m	B767Series/AIRBUS A-310
E	52 m but < 65 m	B777 Series/B787 Series/A330 Family
F	65 m but < 80 m	Boeing 747-8/Airbus A-380-800

Alterations between Plan—A and Plan—B are expressions of the political economy, illustrating a priori and fragmentation in the decision behaviours.

The Master Development Plan /MDP incorporates a FIRST PHASE for immediate corrective action (Keat, 2023). The SECOND PHASE (Gittens, 2024) is for future implementation. Table 3 presents the expenditures for the expansion and upgrade of the facility, which derives from the alterations of Alterations between Plan—A and Plan—B.

A runway length of 1540m, plus RESA/ Runway End Safety Area and Stopway Runway, is technically apt for landing of an ATR 72-500, BAe 146-100 and Q400. With the forecast runway usability and its capacity to operate nearly all aircraft class; improving the logistics network within the airport sphere of influence came as the first order of the house (Center for Aviation, 2024) . These provisions comply with the Philippines Manual of Standards for Aerodromes /MOSA and International Civil Aviation Organization /CAAP Standards and Aerodrome Certification /Annex 14.

The FIRST PHASE is aimed at category 3C aerodrome capacity (Aviator, 2023); and the SECOND PHASE is aimed at category 4C aerodrome capacity. Facility components that qualify category 3C standard includes: Runway length of 1540 meters and width of 30 meters, Stopway at 60 meters. Future upgrade to quality category 4c includes: ≠runway length expansion to 2100 meters ≠expansion of runway width to 45 meters ≠apron expansion ≠expansion of the passenger terminal building to standard ≠expansion of vehicle parking area to standard and the ≠upgrade of administration building to standard (Systra Philippines, 2020).

Table 3 Cost implications in Philippine Currency (DOTr, 2020)

Description	Philippine peso
General Requirements	28,731,207.6
Horizontal Structures	1,437,242,764.0
Vertical Structures	404,620,000.0
Air navigation support facilities	69,350,000.0
Special equipment/ Instruments	10,000,000.0
Fire fighting vehicle & other maintenance equipment	107,500,000.0
Utilities	35,000,000.0
Total cost of construction, phase I	2,092,443,971.6
(+) Physical contingency 10%, Detailed engineering design 2% of total cost; Construction supervision 5% of total cost Land acquisition & easements	209,244,397.2
<b>Total cost for Phase 1</b>	<b>2,604,083,886.5</b>

At an approximate distance of 8.5 kilometres from the town proper to Central Mindanao Airport, the existing access roads to the airport had been evaluated as inadequate. From the town proper, there are access roads to the Municipalities of Makilala and Matalam; but there are no direct roadway circuits. On the Master Development Plan; new road networks are introduced for improved network flow in the vicinity of airport influence. This puts down road widening for road right-of-way /RROW, plus the upgrade of road pavement. Two access roads are priority; these are to connect the barangay road to national roads. An additional two for future expansion.

The Master Development Plan lists the following: A Passenger Terminal Building /PTB had been fit out with check-in counters but lacking the queuing conveyors, belt conveyors, x-ray machines, flight information display; PWD friendly facilities; and baggage claim area. Although the runway length of 1540m end to end, exclusive of Runway End Safety Area /RESA and Stopway Runway had been determined at the capability for ATR 72-500, BAe 146-100 and Q400; the apron can fit just one larger aircraft. The airport facility does not include an Administration building and Control Tower.

The Network of Airport Influence considers the connectivity of an airport terminal to rail and road networks. In the current facility the items for immediate corrective compliance to qualify Airport Category 3C, as follows: (a) Establishment of the Runway End Safety Area /RESA at minimum of 90 meters length (b) Apron provision 12000 sq. meters (c) Realignment of passenger terminal building to meet standard 3000 sq. meters (d) Build of control tower at 400 sq. meters (e) Establish vehicle parking area to standard 15625 sq. meters (f) Build of Fire & rescue building (g) build administration building to standard 925 sq. meters.

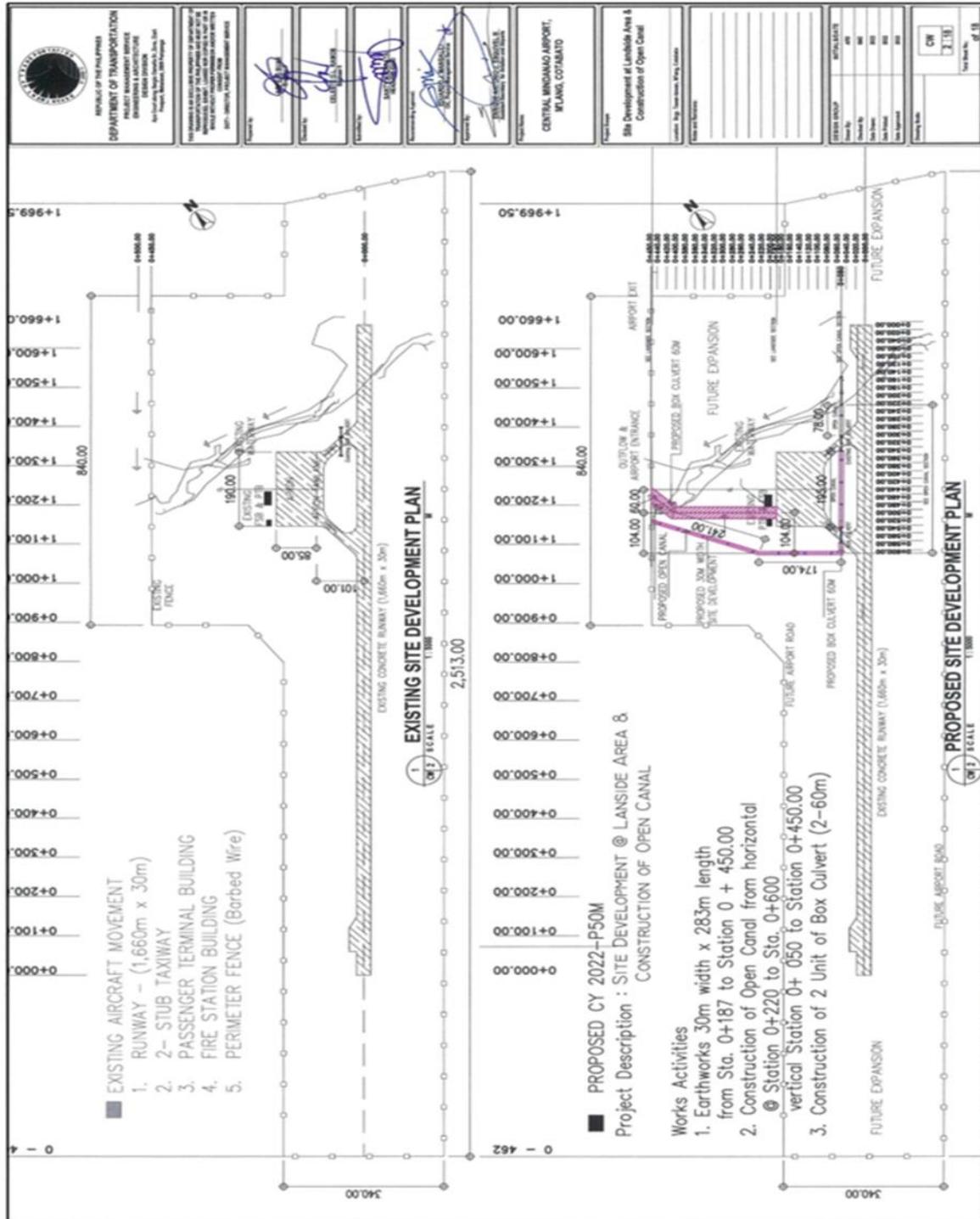


Figure 2 CMA signed technical drawings (DOTr, 2022)

Figure 2 is part of the complete set of approved plans, which can be viewed in the Appendices. The layout presents the site development plan, and the alterations between Plan—A and Plan—B.

*1.4 Dysfunctional a priori of ghost airports*

There are many varying reasons for mothballed aerodromes with dozens of these all over the world. Aerodromes have been mothballed due to market shifts or economic pressures; poor workmanship quality resulting in failed facility airworthiness and safety; political conflict and arms struggle resulting in structural damage; and sheer population growth in adjacent regions that outweigh the relevance of an existing terminal.

Table 4 Compilation of a few Ghost airports

Year	Descriptive of circumstance
1962	Johnston Atoll Airport Minor Outlying Islands. A naval defence area for the Pacific US and chemical weapons depot. Currently a disposal facility and bird sanctuary.
1970	Floyd Bennett Field NY USA. Mothballed due to ownership dispute and not-in-use.
1974	Nicosia International airport Greece. Mothballed after the Turkish invasion and currently headquarters of the UN Peacekeeping Force.
1983	Pearls Airport. Caribbean island. Mothballed after severe damage upon US Marine seizure and presently utilized for drag racing, if not a popular Cold War Museum
1994	Sperenberg Airfield Berlin Germany. Key location of Soviet forces in East Germany; mothballed during Reunification then returned to the German Federal Government.
1998	Kai'Tak Hong Kong China had been mothballed with the build of a new terminal. Presently underway conversion to residential use.
1999	Robert Mueller Municipal Airport Austin USA. Replaced as Greater Austin's main airport developed. After mothballing its hangars had been converted to Austin Sound Studios, with the rest underway land conversion to residential subdivision.
2000	Gaza International Airport Palestine had been mothballed after taking heavy bomb attacks, fully damaged and abandoned completely.
2001	Hellinikon Airport Greece had been built specifically for the Olympic Games and did not obtain market stabilization afterward. After mothballing it became the Olympic Airways Museum.
2002	Doncaster Sheffield Airport England. Mothballed after international connections with Amsterdam, Brussels and Dublin progressively cancelled. Recently closed deal on lease with landowners, the Peel Group for 125 years.
2004	Baginton Aerodrome Coventry, England. Mothballed by instruction of the High Court to wind up the company, as petitioned by HM. At present the Coventry City Council and The Rigby Group proposed to build a gigafactory producing batteries for electric cars.
2004	El Barranco Bailen Jaen Madrid Spain. Initially a German summer parachute camp until mothballed and still not-in-use.

- 2004 Mirabel International Airport. Canada had been built for the 1976 Olympics, sustaining a weak market afterward. The State Government intends the YMX International Aerocity of Mirabe for private passenger flights & medical supply plant.
- 2008 The Temple of Berlin Germany had been mothballed after the Head of State's decision to concentrate all flights to Berlin at the Berlin-Schönefeld. It functions now as a City park and bird paradise.
- 2010 Durban International airport South Africa had been overthrown by the New King Shaka International built for football World Cup Future Industrial Development.
- 2011 Plymouth City Airport England had been mothballed when dropped by the British Airways in domestic routes reduction. Aerodrome revamp is the current intention of Sutton Harbour Holdings, transitioning the space into the Plym Vale peripheral gardens.
- 2011 County Gallway Airport Inisbofin Ireland mothballed due to business restructuring of the aviation industry. On-going redevelopment for a film studio and TV production.
- 2012 Castellon Costa Azahar airport Spain had been mothballed due unimagined construction failure and wasteful spending. The facility is currently being transitioned as a storage facility for Ukraine International Airlines over the Russian invasion.
- 2012 Ciudad Real Airport La Manch Spain had been mothballed when the Management Company filed for bankruptcy and went into receivership. The facility is currently General Aviation Airworthy. An Irish company Direct Aero Services has set up maintenance base and Jet Aircraft Services established an aircraft dismantling unit.
- 2014 Manston Airport Kent County England had been positioned as RAF Manston in 1918, and is a proven airstrip commercially capable of long-haul aircraft landing. After shutdown it is now a British Open Paramotor Championships & filming location.
- 2014 Sergey Prokofiev International Airport Ukraine had been mothballed after months of fighting by Separatist and currently not-in-use.
- 2017 Koh Phangan Airport. Thailand appears to have encroached on national park land during its construction and mothballed. The Project is abandoned.
- 2017 Croydon Airport England's past role as the sole interwar International Airport of England in 1920. It is mothballed and declared Heritage at Risk by Historic England.
- 2019 Sukhumi Bashara Airport Abkhazia had been mothballed after the bombing and heavy landmines in the area and currently not-in-use.
- 2022 Old Chiang Rai Airport Thailand had been mothballed when replaced with the newly built international airport. The space is now a New People's recreation park.
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*1.5 Hypothesis: A Strategic Misrepresentation depicts dysfunctional a priori*

A strategic misrepresentation tolerated, is typical of dysfunctional culture: When the Authorities elevated the functional utilisation of the Central Mindanao Airport from a community airport, to an “Alternate Aerodrome” by reason of strategic location; without comprehensive analysis. The idea of establishing an alternate aerodrome to an international airport, would entail equivocal capacity in terms of border protection, rather ambitious and very costly; given the population under a hundred thousand persons. A logical population would mean a large enough population that can justify expenditures for aerodrome operations, maintenance, and border protection. Conjecturing flights for Central Mindanao Airport, using the actual aircraft movements of four adjacent airports can confirm the hypothesis.

**2. Methodology**

This study applies a positivism philosophy; which construes a rudimentary logic that the essence of reality is singular, objective, and tangible (O'Reilly, 2009). The work completes the evaluation of two features; a priori influenced by the political economy, and flight forecasts by stochastic abstraction.

*2.1 Stochastic Abstraction*

Stochastic abstraction is the random between the maximum and minimum limits to visualize flight forecast, by tendency of the oscillation. Hosch (2022) explained randomness simply means a random probability distribution or pattern analyses statistically to predict outcomes. This particular mathematical formula ensures reliability in the simulation of the forecast flights (Hosch, 2022).

*2.2 A Priori decision behaviour*

The term "*a priori*" denotes reasoning which proceeds from theoretical deduction rather than from observation or experience. In here, a priori applies an adaptation of the “Schools of descriptive decision theories” collected in the justification of the study “Berlin Brandenburg visions of grandeur to grand failure”, published in the 2016 Proceedings of the Academy of Management. Decision behaviour had three categories: A reductionist approach, the pluralist approach and the Contextualist approach (Gerald & Stingi, 2016).

*2.3 Research Design*

To predict aircraft movements, the mean ( $\mu$ ) on total yearly flights of four adjacent airports are exhibited by application of stochastic abstraction. These four aerodromes select Cagayan de Oro, Cotabato City, Davao City and General Santos City. Alongside the mathematical review, decision a priori is evaluated using the framework of Schools of Behavioural Strategy in deciding projects.

### 2.3.1 Reductionist behaviour of decision maker

Reductionists in the context of decision a priori had been examined by Daniel Kahneman & Amos Tversky as the analysis of decision under risk. A Reductionist decision maker evaluates and describes difficult ideas in very basic, rudimentary elements. The approach looks into expectations and consequences, both on a personal level and a non-personal level. Although the assertion to raise positive outcomes continue; stereotyping is the obvious fault.

Reductionist behaviour had been assessed in the 2011 study by Thomas Powell, Dan Lovallo and Craig Fox on strategy. In similar vein, the behaviour of ‘bounded rationality’ introduced by Herbert Simon, was first published in 2018 (Powell, 2011). Bounded rationality explains that what one knows, assumes ability constraints and discourages labelling a downright Homo Economicus. Other variants of reductionist behaviours are self-efficacy by Jani (2008), intuition and pattern recognition by Hartman (2008), sustained false optimism bias by Kutsch et al (2011), overconfidence by Geraldi and Arlt (2015), and Flyvbjerg (2019) optimism bias (Jani, 2011; Kultch, 2010; Geraldi & Stingi, 2016; Flyvberg, 2008).

### 2.3.2 Schools of Pluralist behaviour of decision maker

A pluralist advocates a system of dual or multi authority sources to coexist. These democracies correlate diverse interest groups and political systems, which a pluralist implicates in the decision making process. Cyert and March (1963) underscored the concept of tolerance; given that power ought to be distributed across numerous interest groups, in contrast a concentrated elite group. The concept of pluralist behaviour developed further the organization theory; which is as an expression of diverse perspectives within a single unit (Cyert, 2013).

Other associated pluralists behaviour include the strategic misrepresentation by Flyvbjerg (2008), which won 2002 Nobel prize in economics for introducing new forecasting method on decision-making (Flyvberg, 2008). The study of Chapman et al (2006) finds that a pluralist decision maker could end up as; a dysfunctional corporate culture, characterised as a conspiracy of optimism and irrational objectivity (Chapman, 2006). The strategic rent seeking behaviour has intellectual origin in the philosophies of Lord Sanderson (1868-1939) of the Royal Economics Society of England who had made large contributions to the concept of free trade and tariff reforms. Discussion on political filters of evidence by Haji-Kazemi et al (2015) illustrate project faults that result from a lack of an outside view and the normalization of deviance inside an organisation (Haji-Kazemi, 2015).

### 2.3.3 Contextualist behaviour of decision maker

A Contextualist behaviour construes specific circumstances and identifies constraints before making a choice. The orientation assumes decisions are unique and not universally apt. A Contextualist decision maker looks into the elements of the environment that impede cognitive performance, if not influence the attitudes and actions in regards to decision.

An analysis by Pitris et al (2003) conceptualised the "Future Perfect Thinking" which suggests imaging a future that has already occurred. This eradicates ambiguity and becomes concrete by limiting uncertainty (Pitsis, 2003) . Kutsch (2010) cultural insight points out that taboo and its correlated representation are crucial. Taboos reflect moral restriction on particular doings understood as inappropriate; and the escalated risk when assuming these are irrelevant (Kultch, 2010). Contextualisation in the views of Thiry (2001) would be simply to understand the sensemaking process of apparent existing examples or existing paradigms; to make it easier to reconstruct parameters to enable a decision with less confrontation (Thiry, 2001).

Table 5 Schools of Behavioural Strategy in deciding projects (Gerald and Stingi, 2016)

	Reductionist	Pluralist	Contextualist
Weltanschauung in relation to decisions (World View in German)	Decisions intend to be rational, any deviations from rationality should be mitigated.	Decisions are negotiation arenas, prone for conflict of interests, bargaining & opportunistic behaviour.	Decisions are a sensemaking process intertwined in negotiated meanings of cultural narratives constructed before, during and even after the project
Assumptions about decision maker's behaviour	Decision makers make decisions consciously as 'events' but are bounded by rational, and hence cognitively limited	Decision makers are rational and strongly influenced by personal & political interests, which can be in conflict with that of the project	Decision makers do not 'make' decisions, rather construct narratives which will shape the process of attention, prioritisation and ultimately decisions.
Core processes of interest	Individual & intragroup decision making	Intergroup bargaining, problem solving, politics, conflict resolution, organizational learning, resource allocation	Sensemaking, perception, enactment, action generation
Caricature of project actors portrayed in research findings	The optimist: project actors suffer from ludicrous optimism bias	The opportunist: project actors have their own interests at heart	The orchestrator: project actors surf on waves of meaning in a highly ambiguous world

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Key generic concepts in social & cognitive psychology	Cognitive biases; heuristics; bounded rationality; subjective utility or probability; personality types; groupthink;	Conflict culture; decision process; inclusion & participation; intra-project communication; negotiations; bargaining; game theory	Culture (Hofstede model); language, signs & symbols; values, taboos, sensemaking, storytelling; future perfect strategizing
Typical methodologies	Positivist study, marked by experimental research; modelling & simulation	Critical realist, socio constructivist marked by qualitative and multi-method tradition	Socio constructivist; marked by qualitative; in-depth studies; ethnography; grounded theorising;

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**3. Results**

From the temporal reference of Plan A—Utility Transport Aerodrome as a freight forwarding facility of farm produce; the decision behaviour is reductionist. The a priori is straightforward, choosing critical infrastructure of fundamental importance to the province.

Consequently, a slant in decision behaviour toward positive bias and bounded rationality is observed. First is the given circumstance of farm product surplus, whereas the opportunity to explore market expansion becomes apparent. Therefore establishing a positive bias that an aerodrome facilitates market expansion. Secondly, and more so with the Greater Cotabato scheme for economic advancement which incorporates the Central Mindanao Airport and the Agro-Industrial Park by a roadway conduit in a two kilometres path right into the terminal. Notwithstanding, the land acquisition from an influential private entity, insinuates conflict of interest influenced by personal and political goals, that depict pure Pluralist behaviour. This confirms the hypothesis of strategic misrepresentation tolerated, thus a dysfunctional a priori.

A strategic misrepresentation tolerated, is typical of dysfunctional culture, when the Authorities accelerated Central Mindanao Airport from a community airport, into an “Alternate Aerodrome”, due its strategic location, without analysis of the formation of Aerodromes in the Philippines and border protection issues. this confirms the hypothesis of strategic misrepresentation tolerated, thus a dysfunctional a priori.

There are another 18 facilities in the pipeline; with five in study stage for locations of Bulacan, Basilan, Cebu, Sultan Kudarat and Zamboanga. Future aerodromes under construction are found in Bukidnon, Cagayan, Dumaguete, Kabankalan, and Palawan. Another five had been suspended completely Libmanan, Pangasinan, Palawan, Quirino and San Carlos.

Of the private aerodromes that are unclassified, 82 facilities are utilized for farming, 53 facilities for General Aviation, and 24 facilities for Tourism; 19 facilities for are utilized for Mining, 15 facilities are utilized in forestry and 10 facilities for industry. In terms of distribution, 37 private aerodromes are found in the Davao region; 30 private aerodromes in region 4B /MINAROPA and 20 private aerodromes in Central Luzon. One third of all military facilities are located in Central Luzon. Central Mindanao Airport is located in region 12 /Soccskargen, where there is one Domestic Airport Terminal, 2 Community airstrips and 1 Military facility. There are 14 unclassified aerodromes in the region. For Domestic Aerodromes in the Philippines, Class 1 principal airports are airports capable of serving jet aircraft with a capacity of at least 100 seats, but could be 70. Class 2 principal airports are airports capable of serving propeller aircraft with a capacity of at least 19 seats.

Table 6 is the aerodromes classification in the country and Table 7 qualifies the unclassified airports in the country. A summary of aerodromes nationwide is found in Appendix A. Table 6 and Table 7 summarise the formation of aerodromes to complete 380 locations, with more than half of these unclassified private facilities. One-fifth or 71 aerodromes are military facilities, recognizing 13 percent or 50 listed aerodromes built for the Pacific wars are currently defunct.

Table 6 Aerodrome/Airfields classification (Compilation, 2023)

	International	Domestic	Community	Military	Unclassified	Pipeline
No of Airfield	8	40	40	71	203	18
Percent	2%	11%	11%	19%	53%	5%

Table 7 Unclassified aerodromes and utilization (Compilation, 2023)

	Agriculture	Forestry	Industry	Mining	Tourism	General Aviation
No of Airfield	82	15	10	19	24	53
Percent	40%	7%	5%	9%	12%	26%

Eight are International Airport Terminals, 40 are Domestic Terminals and 40 are Community airstrips mostly without ICAO and IATA codes. As a matter of fact, there are only a total of eight international airports in the entire country, with two of these in the Mindanao territory. The idea of establishing an alternate aerodrome to an international airport, would entail equal capacity in terms of border protection, which is ambitious and very costly for a municipality of less than a population of a hundred thousand persons. It seems that a logical population would mean a large enough population that can justify terminal operations and maintenance; apart from the associated investment and border protection cost.

Table 6 & 7 are compilations from PilotNav by Dauntless Aviation based in Pennsylvania, Metar and Taf is based in Spain and collects data from the NOTAM of the FAA; and AirportGuide.com based in North America by award winning platform Ezoic; Our airports and airport profile

4. Discussion

It is sufficient to state decision behaviour by strategic misrepresentation includes a report on economic life of the aerodrome for just 27 years. This is too brief a period to expect responses in the market, even more with the COVID scenario at that time of a priori. Take into account, aerodrome facilities or national infrastructures are typically built to last 75 years, at the very least. Flight forecasts without methodology had been tolerated to state, "There is no prior data for annual passenger traffic, and annual aircraft movement" (see appendices report 3.2.6). This can be explained further with bounded rationality that the adviser to the institution did not make use of existing information to derive flights forecast. This confirms the hypothesis of strategic misrepresentation tolerated, thus a dysfunctional a priori.

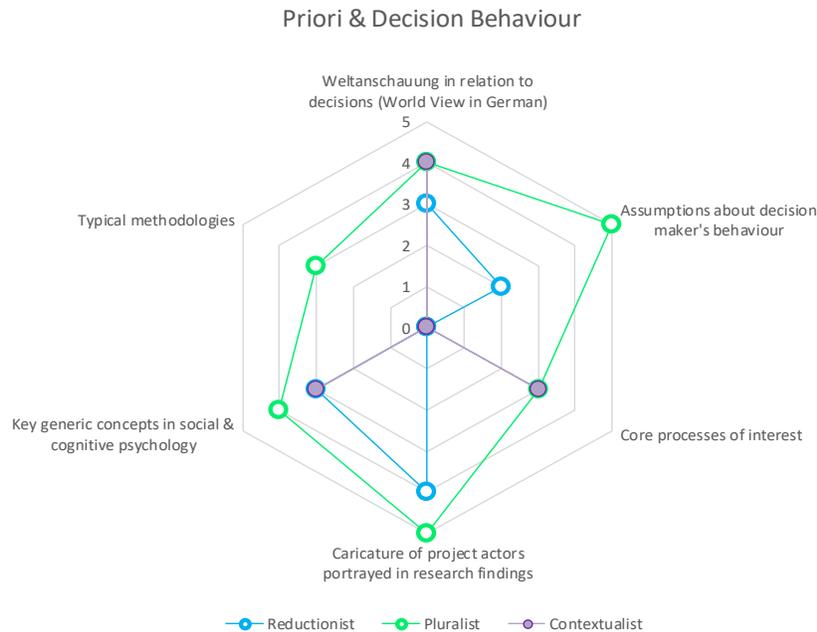


Figure 3 CMA A Priori of decision behaviour (Molintas, 2025)

Appallingly, it could be the Central Mindanao Airport stays mothballed to siphon funds through the political economy to survive large redundant Government units; qualifying a decision behaviour of delusion and deception by the correlated leadership (Flyvberg, 2008). Such decision behaviour traces a political culture and orientation to bloom from a person’s past peer-group associations and family structures. The Filipino is extremely group-sensitive, and self seeks for acceptance by the group. In fact, investigative studies find structure-embeddedness of the political economy typically "draws power from money, coercion and criminal networks" (Montiel, 2012). This confirms the hypothesis of strategic misrepresentation tolerated, thus a dysfunctional a priori.

Given that the project actors encourage utterly ambiguous directions, the afterthought of doing a Master Development Plan is catastrophic; and depict a decision behaviour that is purely pluralist. This includes institutional repetitive review of budgets that are focused on where money is spent. From the original expected cost to the phased financial plan of over two billion pesos, with very little thought put on expense recovery.

Figure 3 illustrates a priori of decision behaviour stated in the discussion. A priori would mean reasoning or knowledge emanating from logic for itself. A priori is not based on experience garnered or actual observation. "A priori" in the frame of reference of decision making denotes that the fundamentals upon which a conclusion reached, is based on existing knowledge or beliefs; Clearly without thorough investigation or analysis of evidence.

No principled reason exists to presume that every proposition on the Central Mindanao Airport must be knowable. Much of the analysis are synthetic propositions to the Agro-Industrial zone and the Mega Cotabato economic development plan. Nevertheless, decision behaviour a priori suggests that by its very nature: is warped. A built-in distortion of reality exists, before any observation or analysis has occurred. This confirms the hypothesis of strategic misrepresentation tolerated, thus a dysfunctional a priori.



Figure 4 Illustration of Strategic Location (Adaptation of google maps)

Clearly at the outset, Central Mindanao Airport is capable of handling flights without obscene expenditure for the upgrade of navigation instrumentation. A control tower is adequate, and not necessary for Utility Transport Aerodromes. There are dozens of aerodromes worldwide that operate strictly on Non Instrument category. Dozens of runways that meet less onerous standards and known as non-instrument runways yet still continually operate in Visual Meteorological Conditions /VMC for domestic and international flights (UK Civil Aviation Authority, 2023). In aviation, visual meteorological conditions refers to the flight category whereby visual flight rules flight is permitted under the given flight envelope where a pilot has sufficient visibility maintaining aircraft separation from terrain and other aircraft (Safety and Airspace Regulation Group, 2023). An Approach Control service is to be provided at the aerodrome tower with equipment for providing aid for an approach to landing by radio or radar to reduce the risk of mid-air collision (US Government, Department of Transportation, 2023).

Flight connections from Cagayan De Oro include 100 direct destinations to Manila, 30 direct destinations to Cebu, 7 direct destinations to Davao city and to Iloilo. Flight connections from Davao City show 100 direct flights to Doha, Singapore & Hong Kong; 30 direct flights to Bangkok, Manila & Cebu; and 7 direct flights to Clark, Tagbilaran, Zamboanga, Cagayan de Oro, Del Carmen, Puerto Princesa, Bacolod, Tacloban, Caticlan and Laoag. Flight connections from General Santos City include 144 direct destinations and Cotabato City another 144 direct destinations. Figure 4 shows a glimpse of flight connections from these four locations.

4.1. Stochastic Abstraction

Conjecturing flights for Central Mindanao Airport, uses the actual aircraft movements of four adjacent airports from 2001 up to 2024. For this simulation, data had been provided by the Civil Aviation Authority of the Philippines, Aerodrome Development and Management Service.

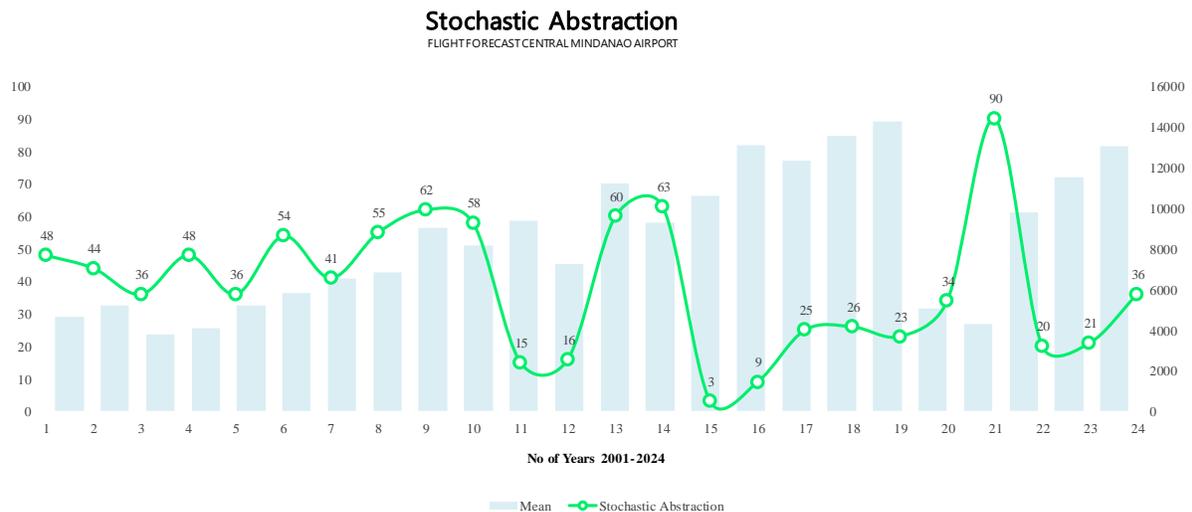


Figure 5 Stochastic Abstraction & mean (μ) flights (Molintas 2025)

The findings state an oscillation at a lower limit of ten flights and an upper limit of 120 flights. When compared to all other regions, the number of flights are just about the same for recent facilities. Region IV San Vicente airport in Palawan, registered a total low of 110 flights for the entire last year, 2024. Borongan Airport of Region VIII registered a total low of 143 flights for the same year. While Borongan Airport is a young aerodrome less twenty years in operation; the San Vicente airport is less than ten years in operation.

Figure 5 presents the oscillations between the upper and lower limits against the backdrop of the mean ( $\mu$ ) aircraft movements across all four adjacent aerodromes. The mean ( $\mu$ ) states a lower limit of 4700 flights to an upper limit of 14300 flights. The findings state an oscillation at a lower limit of ten flights and an upper limit of 120 flights. When compared to all other regions, the number of flights are just about the same for recent facilities. Region IV San Vicente airport in Palawan, registered a total low of 110 flights for the entire last year, 2024. Borongan Airport of Region VIII registered a total low of 143 flights for the same year. While Borongan Airport is a young aerodrome less twenty years in operation; the San Vicente airport is less than ten years in operation.

## **5. Conclusion**

In this study, the forecast flights by way of stochastic abstraction are modest, and reasonable for a community Utility Transport Aerodrome operation. The facility can evolve over time, into a key node in the transportation network of the Greater Cotabato region. Under present circumstance, an international alternate aerodrome can place considerable security risk on the nation. Further research on alternate linkages might be more effective, such as establishing a railway to link all four major aerodromes in Mindanao.

Mothballing is executed over warships or battle crafts but not for literally exposed assets such as runways; where the practice of mothballing can ruin the potential of the infrastructure itself; therefore, anomalous. The Central Mindanao Airport is a classic case of institutional irrelevance, fraud and lack of leadership culpability in public procurement of infrastructure. No principled reason exists to presume that every proposition on the Central Mindanao Airport must be knowable. Much of the analysis are synthetic propositions to the Agro-Industrial zone and the Mega Cotabato economic development plan; and illustrate pure pluralist behaviour. The findings state an oscillation at a lower limit of ten flights and an upper limit of 120 flights. When compared to all other regions, the number of flights are just about the same for recent facilities. Region IV San Vicente airport in Palawan, registered a total low of 110 flights for the entire last year, 2024. Borongan Airport of Region VIII registered a total low of 143 flights for the same year. While Borongan Airport is a young aerodrome less twenty years in operation; the San Vicente airport is less than ten years in operation. Positive bias and bounded rationality result in delusion and deception of the correlated leadership. Even though actors might simply be conceptually or constitutionally unable to comprehend or ascertain propositions; an existing inherent problem emanates from the political economy; thus concludes a dysfunctional a priori.

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