

Consequence of Rice Land Conversion to Rice Security and Peace and Order Tabuk City, Kalinga, Philippines: A Root Cause Analysis.

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ABSTRACT

Tabuk City was declared the rice granary of the cordilleras after the city was covered with agricultural irrigation since it was able to produce an aggregate gross production of 1,436,520 cavans per cropping period. By then the entire cordillera regions get their rice supplies in exchange of other goods and their agricultural products.

But due to unabated illegal conversions that the local government failed to prevent attended by the CLUP that prioritized commercialization over preservation of agricultural lands that allows vast of irrigated lands for re-classification and ultimately converted into other uses the rice production of the city is now dwindling and with a conservative estimate and projection for 20 years from date the city will be needing atleast of 376,332,984 kilos of rice divide by 40 kilos per bag will translate into 9,408,324.6 bags of rice supply with and estimated population increase of 752,352 families by 2040. With this scenario, there will be too much hungry families that in the in the language of criminological science will be the primary driver of criminality.

Amidst the frustration of farmers to farm brought about by other factors like the

Rice Tarrification Law by Senator Cynthia Villar (RTL) that makes farm output in the mercy of traders where farmers income goes down to break even or loss due to very high inputs and very low price of outputs contributes to the dwindling production.

Other factors contributing to the decrease of irrigated land areas is the tongue wetting prices offered by commercial developers, land owners are tempted to sell their properties and either transfer to other nearby areas or personally convert their lands into either residential or commercial areas.

This study results (data) is intended to be presented to the local city legislators for their consideration. That if there will be no pro-active actions the projected possibilities will make the city hungry.

Keywords

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Introduction

Maslow's hierarchy of needs defines what are the necessities for human existence, the first being the need for food. In history, the Philippines has been an exporter of rice staples to neighboring countries and becomes the center for training in agriculture and crop production which leads other countries to forge memorandums of understanding for exchange students. During the Marcos era much of his administrations projects are irrigations intended to secure food adequacy for the Filipinos.

In the cordilleras, Tabuk City, when its vast flat lands were irrigated, it was declared as the rice hub of the Cordilleras. It is the source of the best and most pricy rice in the market. That was my earliest recollection of Tabuk City. That was about 50 years ago, and Tabuk was not a city but probably, mostly rice fields. (Domoguen, April 16, 2018)

Tabuk city has a land area of 70,025 hectares, about 60% of its land area is devoted to agriculture while the rest are residential, commercial, and industrial and forest zones. The total physical agricultural area of 16,103.5 hectares is devoted to the different crops for the first cropping and 13,059 hectares for the second cropping. The irrigated land has a total land area of 11,971 hectares while 1,637 hectares are rainfed. (CORDILLERA ALMANAC DILG-CAR www.tabuk.gov.ph)

Tabuk has an estimated population of 103,912 with No. of Registered Voters at 47,410 and with total No. of Barangays at 42 as of 2015 with an estimated 1.74 percent annual increase. This is with exception of those migrating and or

transient populations who frequent the city from other nearby municipalities and provinces. All of these populations during their stay consume food.

Table 1: total land area of Tabuk City and areas devoted to agriculture

Total land Area	Agricultural areas	Irrigated Areas	Rain Fed areas
70,025 hectares	16,103.5	11,971	1,637

Land classification of tabuk city 22.29% was classified as agricultural lands with 74% irrigated and 10.16% rainfed rice lands. The irrigated Riceland give us a regular two cropping per year while the rainfed area gives us one cropping per year. The irrigated part produces an average of 120 cavans per hectare when it is not affected by natural calamities while the rainfed area yields an average of 80 cavans per hectare when not affected by calamities.

Table 2: Population and estimated rice consumption (as of 2015)

Registered population	Number of Families	Estimated Rice consumption
96,588 in 2010 to 110,642 as of 2015	22,128 families with an average of 5 members per family as of 2015	99,577.8 kilos per family per day at 1.5 kilos per meal at 3 meals per day

Available records at the local NSO office is only limited from 2010 to 2015 census. With an average of 1.74 %

annual increase and if this will be sustained for the coming 20 years the population will ballooned to 419,333.19 by 2040. A great number of populations that should be fed.

Table 3: Estimated Production of Rice

Status Agricultural Area	Total areas	Total Production per crop
Irrigated	11,971	1,436,520 bags per hectare at an average of 120 bags per hectare
Rainfed	1,637	130,960 per bags hectare at an average of 80 bags per hectare

With these volumes of produce, it is substantial to sustain rice supply for the coming 20 years with the above projected increase of population.

What is alarming is a daily news (radio natin January 29, 2019) states that, the NFA Kalinga has received or is receiving at least 80,000 bags of imported rice to be distributed to NFA outlets such that consumers may have enough supply in the market. What an irony, these issues instigated this researcher to conduct this study since, it cannot be denied that less food in the table for every family will result to family breakage and leads to criminality within the community.

This study was conceptualized based on observation and related issues as to what will happen to the pride of Tabuk City being adjudges as the rice bowl of the cordilleras. Are the issues of food security and sustainability still relevant to our local governance? Awareness of the citizens of Tabuk city on the future of food supply in the city? And its impact to the peace and order situation.

This is so on the theory that poverty and hunger is a driving force of criminality and poverty is measured on the ability of every individual to feed himself. Where in the Philippines, rice is the main staple of every Filipino family.

Legal framework

SENATE HOUSE BILL: S. No. 14G4

Introduced by Senator Ralph G. Recto

AN ACT PROHIBITING THE CONVERSION OF IRRIGATED AND IRRIGABLE

AGRICULTURAL LANDS FOR NON-AGRICULTURAL USES, AMENDING FOR THE

PURPOSE SECTION 20 OF REPUBLIC ACT NO. 7160, OTHERW ISE KNOWN AS

THE LOCAL GOVERNMENT CODE OF 1001

Land and soil resources, particularly those devoted to agricultural uses, are important Resources of the country because they are directly related to food production of the Philippines' land area of roughly 30 million hectares, 9.7 million are considered agricultural. Unfortunately, sustainable land use for food production is under threat due to massive conversion of these lands for non-agricultural uses - a key contributor for food insecurity and rising costs of basic commodities in recent years.

The rampant conversion of prime agricultural land which is partly propelled by rapid urbanization and population growth is a serious threat to the sustainability of a primarily agricultural economy like that of our country. A number of

agricultural lands those are critical to food production have been transformed into subdivisions, commercial centers, golf courses and export processing zones, among others. According to the Department of Agrarian Reform (DAR), a total of 97,592.5 hectares of agricultural land—the size of Metro Manila and Cebu City were approved for conversion to non-agricultural purposes from 1988 (when the Comprehensive Agrarian Reform Law took effect) to 2016. And of the approved conversion applications in DAR regional offices over the same period, 80.6 percent of the land is in Luzon, with the provinces of Cavite, Laguna, Batangas, Rizal and Quezon (Calabarzon) taking up more than a quarter of the total. Visayas accounted for 7.8 percent and Mindanao, 11.6 percent. For the past 28 years since 1988, DAR regional offices approved a total of 40,308.8 hectares while the national office approved 57,283.7 hectares for land conversions. Pending applications for conversion, agricultural land reclassified by local government units and illegally converted lands are not yet included in the above-cited figures.

It is disheartening that this caused the displacement of our farmers and effectively destroyed their livelihood which immensely contributed to the increase of landlessness and National Statistical Coordination Board. (1998). Philippine Asset Accounts; Forest, Land/Soil, Fishery, Mineral, and Water Resources. (Retrieved from unemployment in the countryside). It has disrupted the ecological balance of our environment which could impact on local climate change and imminent water crisis.

Thus, consistent with the policy of the State to ensure the availability, adequacy, accessibility of food supplies to every Filipino at all times and to promote food security particularly rice supply, this bill imposes a ban on agricultural land conversion on all irrigated and irrigable lands in the country.

This bill seeks to arrest the irresponsible and indiscriminate conversion of irrigated and irrigable agricultural lands into residential, commercial, industrial and other zones by prohibiting its conversion. It also seeks to amend Section 20 of the Local Government Code by requiring additional approval from the Department of Agriculture, Department of Agrarian Reform,

Department of Environment and Natural Resources and local government units before a land conversion application can be granted. Such amendment would rationalize the land conversion process and uphold the priority of the government to provide food security to our people.

In view of the foregoing, the immediate approval of this bill is earnestly sought.

Objectives of the Study

This study aimed to look into the Commercial Development in and land conversion and its impact on peace and order situation In Tabuk City. It intended to capture a portrait of various contributory factors such as;

1. Temporal land conversion (2015 to present: based on available data);
2. Rate of rice production loss (2016 to Oct 2020: based on available data);
3. Crime statistics from 2016 to present from the city PNP;

4. Correlate significance of rice supply with criminality rate;
5. Establish 20 years prediction for local legislation purposes.

Methodology

Research Design

This research was based on the Grounded Theory utilizing Phenomenological empirical approach for a more liberal data gathering where such data are based on actual, historical, experiential and up to date information. Delphi style was also utilized where respondents are gathered in a round table discussion.

Respondents of the Study

Sources of information's/data were from the Tabuk City Planning office, DA/DAR, Tabuk City PNP.

Instrumentation

The main data gathering tool was an individual interview. A short unstructured questionnaire was used to gather demographic and situational information. These were independently answered by the respondents. The interviews were guided by a semi-structured interview guide.

Qualitative research is flexible and allows for an interactive data gathering process. The semi-structured guide interview questions were followed up by clarificatory questions in order to better capture the needed facts. (Statistical tables are limited to tabulated data actually provided by the respondent offices)

Data Gathering Procedure

Open source and probative questions was employed that suits the qualitative intent of the study (Simon, M. K, 2011)

Data Analysis

Non-statistical but critical and qualitative analysis was applied to understand and give meaning to every information gathered from respondents.

Results

TABUK CITY PLANNING OFFICE- for information regarding the extent of allowable areas for re-classification.

Based on the City's CLUP 2013-2022 – Zoning Ordinance No. 02 series 2014, provides that;

Road Right Of Way:

1. Barangay Road is 15 meters from the center of the road on both sides ;
2. Provincial Road is 30 meters from the center of the road on both sides ;

3. National Road is 60 meters from the center of the highway on both sides ;
4. For commercial development is 50 meters starting at the end of road right of way on both sides;
5. For residential is another 50 meters from the end of the commercial area on both sides.

NB: the city planning office does not have exact figures as to total areas, only number of lots and measures as per CLUP. Hence, the figures herein are pure estimates based on average areas covered.

Table 4: areas subject of CLUP (road right of way)

Barangay Road	Provincial Road	National Road
15 meters from the center both sides	30 meters from the center both sides	60 meters from the center both sides

This road right of way is what is prescribed under the CLUP of 2014 of the city of Tabuk and according to the city planning officer; still this will be amended to increase the covered areas.

Table 5: CLUP covered for re-classification and development

For commercial areas	For Residential Areas
50 meter after the road right of way both sides of the road	50 meters outside of the commercial area on both sides

These covered areas are still subject to increase depending on what the city council will deem it appropriate on their scheduled meeting on the matter.

Table 6: Total length of Barangay Roads and Road Right of way within the city with 42 Barangays

Dagupan (22 Barangays)	Bulanao (20 Barangays)	Total estimated lengths of Barangay Roads right of way
Estimated average length of Barangay Road at 10 Kilometers per barangay	Estimated average length of barangay road per barangay 10 kilometers per barangay	Estimates based on approved CLUP of the City
10 X 22= 220 kilometers	10 X 20= 200 kilometers	420 X 30 X 1000=12,600,000 sq.mtrs
	Estimated conversion into hectares	1,260 hectares w/in the 42 barangays

These estimates were drawn from the mapping of the DPWH lower Kalinga as planned.

Table 7: Total length of Provincial Roads and Road right of way within the City

from Dagupan to Bulanao	total covered area	conversion to hectares
7km	7 X 60 X 1000= 420,000 sq. mtrs.	42 hectares

This estimate is also drawn from the same DPWH mapping and estimated hectares based on the CLUP allowable for re-classification.

Table 8: Total Length of National Road and Road right of way within the City

Road covered	Length of Road	Estimated covered Area
Bulanao to exit Isbalea	22km	22 X 120 X 1000=2,640,000 sq. mtrs.
Nambaran to exit Tuguegarao	5km	5 X 120 X 1000= 600,000 sq. mtrs.
		3,240,000 /10,000= 324 hectares

Estimates from the length of road vis a vis CLUP prescribed road right of way.

Table 9: Estimated convertible areas based on CLUP (road right of way)

Areas covered	Length of Road covered	Total areas for re-classification in hectares
Barangay Roads	420km X 200m= 84,000 X 1000=84,000,000	84,000,000/10,000= 8,400 hec.
Provincial Road	7km X 200m= 1,400 X 1000=1,400,000	1,400,000/10,000= 140 hec.
National Road	22km X 200m= 44,000 X 1000 =44,000,000	44,000,000/10,000=4,400 hec.
	total re-classifiable areas in hectares	12,940 hectares

Estimates broken-down from barangay road to national road category.

Agricultural areas re-classified into other uses from 2015 to present 249 lots for re-classification, these are all under the allowable areas provided in ordinance number 02, series of 2014.

Table 10: Listed for re-classification at allowable areas for commercial and residential as of 2015 to present

With issued re-classification	With pending or non-application	Total area
249 X 500 sq. mtrs. Ave.= 124,500 sq mtrs.	249X10X500 ave.= 1,245,000 sq. mtrs.	1,369,500 sq.mtrs./1000 136.95 hec.

Estimates of re-classifiable areas based on CLUP.

Table 11: Estimated number of areas converted into other uses outside allowable areas for development without permit

Categories	Estimated Area in sq. mtrs.	Area in hectares
with issued notices	52 issuance X 2,000 ave. per area= 104,000 sq. mtrs.	10.4 hectares
without issued notices	52 X10= 520 X 2,000= 1,040,000	104 hectares
	total area	114.4 hectares

Estimates of areas illegally converted without permit to convert.

Table 12: Irrigated Lands Covered by CLUP

Total land area of the City	Total agricultural	Total re-classifiable	Percentage of irrigated covered by re-classification
70,025 hec.	16,103.5 hec.	12,940 hec.	Barangays =14 out of 42: 33% of 8,400= 3.9 hec.
			Provincial = 140 hec.
			National = 4,400 hec.
			Total 4,543.9 hec. Less 10% on easements and other non-usable= 4,089.51 hec.

Estimated total irrigated areas that are re-classifiable under the CLUP.

Table 13: Summary Table of Loss Irrigated Areas

Particulars	total
CLUP covered areas	4,089.51 hec.
Areas not covered by CLUP but undergone structural development	114.4 hectares
total	4,203.91 hectares

Estimated irrigated areas that were converted either due to CLUP or illegal conversion.

Table 14: Loss of Irrigated Lands

Total Irrigated Areas	Loss due to CLUP	Loss due to Illegal conversions	Variance
11,971 hectares	4,089.51 hec.	114.4 hectares	7,767.09 hectares

Estimates of loss of irrigated lands due to conversion.

Table 15: Loss of Rice Production Attributed to Decrease of Agricultural Rice Lands

Particulars	Total	Decrease	Percentage of loss
Irrigated area	11,971 hectares	7,767.09 hectares	4,203.91 hectares (35.11%)
GROSS PRODUCTION PER CROPPING			
Main cropping season	1,436,520 bags per hectare at an average of 120 bags per hectare	932,050.8 bags loss due to land conversions	504,469.9 (35.11%) net production
second cropping season	957,680 bags hectare at an average of 80 bags per hectare	621,367.2 bags	336,312.8 (35.11)
gross	1,567,480 bags per yr	1,553,418 bags	840,782.7 bags loss per yr

Correlative Loss Of Rice Land And Rice Production

Table 16: Rate of loss per 5yrs as of (2020)

Remaining irrigated areas/production	percentage loss every 5 years	Estimated loss after 20 years
7,767.09 hectares	35.11 %	10,908.10 hectares
1,567,480 bags	35.11%	550,342.22 bags

Estimated rate and percentage loss of production per five years based on data provided by the National Irrigation Administration Kalinga correlated to the loss of irrigated lands drowned from data provided by the City Planning Office and the Department of Agrarian Reform office Kalinga.

Table 17: Correlations with Production and Population's Consumption for 2020 to 2040 (20 years)

Total Production	Total Population	Total Consumption	Variance
1,553,418 bags X 40kls per bag= 62,136,720 kls.	22,128 families (NSO 2015) or 110,642 population as of 2015 with a percentage annual increase of 1.74% from 192,513.6 population in 2010	22,192 @ 1.5 kls per family 33,192 kilos daily consumption X 30days a month 995,760 per month X 12 months 11,949,120 per year 62,136,720 less 11,949,120= 50,187,600 kls.	50,187,600 kilos surplus per year enough to feed 92,940 families in a year

At 7.022% decrease per year based from the 35.11% decrease in 5 years . $4,361,997,744 \times 20 \text{ years} = 1,744,799,097.4 \text{ kls.}$	at 1.74% increase per year In 20 years based from statistics of 2010 to 2015. with the present population of 192,513.6 X 1.74 annual increase 334,973.664 X 20 = 6,699,473.28 population by 2040 a conservative estimates	at 1.74% increase per year consumption 11,949,120 annual consumption multiply it at 1.74% increase per year will give us 20,791,468.8 kilos per year multiply by 20= 415,829,376 kls. by 2040	50,187,600 less 20,791,468.8= 29,396,131.2 variance enough to feed around 55,322.4 families
62,136,720-1,744,799,097.4= -1,682,662,377 negative production by 2040	by 2040, the total population will ballooned to 1,339,894.656 divide by 5 per family will give us 267,978.9 families.	20,791,468.8 multiply by 20 years we have an estimates of 415,829,376 kilos needed rice supply by 2040	415,829,376 kilos of rice supply needed by 2040 less predicted existing stocks at 29,396,131.2 surplus 386,433,244.8 kilos of rice needed by 2040

As of present, Tabuk City is still lucky to have a surplus rice production of 6,117,142 kilos that can feed 6,095,014.2 populations. But the continuing 7.022% annual decrease in irrigated land area follows also 7.022% percent decrease of rice production. In 20 years or (by 2040) decrease of rice production at 8,726,480.95 kilos of rice and with a population increase of (1.74%) one seventy four percent annually at 2015 NSO population registry 192,513.6 multiply by 1.74% and multiply by 20 years results to 6,699,473.28 population by 2040. At a rate of 5 persons per family we register 267,978.9 families by 2040 with a consumption of 1.5 kilos of rice per family per day we will have 401,968.35 per day per family and multiply it at 365 days per year 146,718,447.75 kilos per year consumption in 2040.

The prediction now shows that by 2040, the city requires 146,718,447.75 kilos of rice per year to supply the population. And with the continuing reduction of production brought about by decreasing number of irrigated rice lands due to legal and illegal conversion the city will be forced to import 105,056,159.05 kilos of rice (2,626,403.97 bags) of milled rice. May this figure cause an alarm to our local governance?

Reasons For Conversion: Results Of Interview

- City planning- increase of value of the lot, and to adapt to city development.
- Seller- those who sold their properties, transfer to a wider area example 2 hectares sold in Tabuk City was converted into 10 to 12 hectares in Isabela and other Provinces of Cagayan and Quirino

c. Owner- increase value of the property and converted into commercial with steady income

Who caused the conversion

Usually the owner and those who bought the property.

What happen after conversion

The owner improved economically, but the city reduced in terms of rice production.

Approved application for conversion-

As of 2015 to 2020, 249 lots @ 5,000 sq. mtrs per lot roughly equivalent to 124.5 hectares.

However, the zoning officer of the City planning stated that these applications for reclassification is only about 10 percent of the actual areas where structures are already erected. The major reason is the difficulty of procurement of permits from the Department of Agriculture and the Department of Agrarian Reform offices.

DATA FROM DA/DAR: Statements provided by the following offices;

a. **Department of Agriculture-** actually we really do not issue such permits on applicants since the law on land conversion is very strict which states that "no agricultural lands will be converted into other uses" provided however, it is a part of the city's Comprehensive Land Utilization Program. Another reason is that, the City's CLUP is not yet final and copies of which are not yet provided to our office. At the same time, application for conversion over 500 square meters should be filed at the DAR national office, it is not our jurisdiction.

b. **Department of Agrarian Reform-** most of the applicants did not return upon getting the list of requirements only to find out that they already started or even finished building their structures. Upon monitoring, we issued cease and desist order to stop, and our functions stops there, we are not authorized to file cases in court, it is not part of our mandate. Another factor is that the owners claim their rights over the property that is sanctioned by the tribal laws of the Province. That is why, as much as possible we should be provided with a sheriff to enforce the cease and desist order.

Interventions to unapproved and without application for conversion.

➤ An interview with the CLUP Zoning section (names withheld) gives the following remarks; All lots not covered by the comprehensive land use plan of the city and re-classification of agricultural lots is illegal and were issued notices. As of date the planning and zoning office issued only around 52 notices to illegal conversions and it is just about 10% of the actually converted rice farms and still counting.

Now, granting that the estimate of 10% multiply at 52 we get 520 more conversions without permit with an average of

5000 square meters per lot we arrived at an average estimates of 260 hectares. Further interview on their encountered reasons for the owner's conversions of their Riceland properties, the following arises;

a. The owner family members need to build their own houses;

b. The owner gain more profit by converting into commercial facility;

c. The buyer of the property need to put up his own house and or subdivision for more profit; and

d. Put up their commercial business immediately especially when the development budget is proceeds from loan, hence there is a need for immediate return.

Further they encounter a lot of constraint in the implementation of their CLUP due to unabated buildings from all parts of the city even without permit or clearance since the applicant should first secure first permit for re-classification and conversion at the DAR office which the DAR cannot immediately provide. Other attributes to the difficulty is that the city infrastructure division just issue building permits upon application of the land owner and does not require any other documents like re-classification and conversion permits.

They stated that they find difficulty in determining the responsible person since whenever they visit those areas, the owner is not present and people around deny knowing who is the owner.

➤ An interview to owners who sold their properties (names withheld), these are their responses to the following questions;

1. Why did you sell your Riceland? Answers;

a. **Respondent 1:** a widower, she said, my children are now all professionals and they lost their interest in farming, while I hired somebody to do the farming, the farmer at the same time lost interest due to very high inputs and very low market value of produce brought about by the RTL.

b. **Respondent 2:** a family who owns at least two hectares along the national highway. We sold our land due to very high value offered by the buyer, when we sold our two hectares and buy another agricultural land in nearby Isabela, it becomes twelve hectares, hence we now have more area to cultivate.

c. **Respondent 3:** a couple having one hectare property. Due to very low income in farming and somebody offered to buy it in an amount that is very difficult to turn down, we sold it so we can develop our residential property into a commercial establishment where we are now enjoying more income with less stress and less labor.

➤ An interview with the DA/DAR

1. What were your actions when there is an application for land conversion?

a. **Department of Agriculture-** actually we really do not issue such permits on applicants since the law on land conversion is very strict which states that "no agricultural lands will be converted into other uses" provided however, it is a part of the city's Comprehensive Land Utilization Program. Another reason is that, the City's CLUP is not yet final and copies of which are not yet provided to our office.

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2. What were your actions upon noticing that a structure is already on-going and/or completed yet there is no approved land conversion application?

a. DA/DAR- we issue cease and desist order, however, there are a lot of challenges why we find difficulty in the implementation of the cease and desist order like; we find our security at risk, the owners asserts their right of ownership and that during confrontations we find ourselves vulnerable since we do not have police/sheriff escorts.

b. second is that, when those involved are politicians, we cannot again assert our functions as they are so authoritative.

c. our ultimate actions is that we just conduct Information Education and Communication Drive (IEC) to the Barangays and students.

Crime Statistics City Pnp

Table 13: Crime Statistics 2016 to 2020 (January to October) INDEX CRIMES

Types of crimes	2016	2017	2018	2019	2020	grand total
MURDER	16	2	7	8	3	36
HOMICIDE		2			2	4
PHYSICAL INJURIES	23	31	19	15	6	94
RAPE	18	14	13	14	8	67
ROBBERY	7	14	6	4	11	42
THEFT	10	19	14	9	5	58
CARNAPPING	10	11	4	10	2	37
CATTLE RUSTLING		1				1
TOTAL	85	94	63	60	37	339

NON-INDEX CRIMES

TYPES OF CRIMES	2016	2017	2018	2019	2020	GRAND TOTAL
CHILD abuse	11	15	7	3	1	37
frustrated homicide					4	4
VAWC	56	37	14	15	8	130
frustrated parricide				3		3
frustrated murder					1	1
attempted murder					1	1
SPECIAL LAWS	37	43	60	54	74	268
a. ANTI-fencing				1		1
b. Anti-sexual harassment Act		1				1
c. Comp. dangerous drugs Act 2002	25	13	15	29	53	135
d. Concealment	9					9

of deadly weapon						
e. Cyber-bullying				1		1
f. Illegal fishing Act				1		1
g. Illegal gambling		8	14	4	8	38
h. Illegal logging		8	5	2	3	18
i. Illegal possession of explosives			1			1
j. Illegal possession of firearms	3	15	25	11	7	61
k. Illegal trading of petroleum products (PD 1865)				1		1
l. Viol. COMELEC gun ban				4		4
m. Viol. Of RA 7610 (physical abuse)		1				1
n. Viol. Of RA 9262 (physical abuse)		1				1
o. RA no. 11332 ()					3	3
OTHER NON-INDEX CFIMES						(273)
a. acts of lasciviousness	11	11	5	5	8	40
b. adultery/concubinage	2		2			4
c. alarm & scandal	9	6	3	4	8	30
d. arson	2				1	3
e. assault/resistance to authority	2	3	1	2	2	10
f. deceit		1				1
g. estafa	11	12	2	7		32
h. falsification of public documents		1				1
i. frustrated homicide				1		1
j. illegal discharge of firearm	2	7				9
k. kidnapping	1					1
l. malicious mischief	18	24	10	3	3	58
m. oral defamation		3	1	2		6
n. other deceits		2	2	3		7
o. perjury	1	1				2
p. swindling		1	1			2
THREAT/COERCION						
q. threat/coercion-text/call	7	3	1	2	1	14
r. threat/coercion-verbal	25		2	1		28
s. trespassing	4	3	5	3	4	19
t. unjust vexation	2	6	4	1	1	14
u. violation of RA 7183 ()			1			1
total	221	230	142	118	129	840

Interview With The City Pnp Investigator And Chief Of Police

1. What are the common causes of these crimes?
 - a. **Police Investigator-** in terms of crimes against persons especially physical assaults, these are commonly due to personal misunderstanding and drunkenness. In terms of crimes against property like theft and robbery most suspects are minors and these are due to curiosity and peer influences as well as those neglected children.
 - b. **The chief of police-** as per records, as the investigator stated, those are actually the common causes.
2. Was there an attribute due to unemployment?
 - a. The Investigator- yes, as you can see in terms of crimes against property, those involved are mostly minors who are either neglected or those with minimal parental supervisions. Hence they are un-employed.
3. Who are those commonly involved Transient or permanent residents?
 - a. Investigator- at least 50/50 percent, those children of transient families who enter the city to do business and or labor in constructions and farming. Their children are left without proper supervision so they go out to the business areas and are tempted to get merchandizes that caught their attention.
 - b. Also those permanent residents who are classified as informal settlers when their parents leave home for work, they also get out to the commercial district and commit thefts and forced robbery. The common items being taken ranges from: Cell phones and food stuff those are readily concealable.
4. What were your office interventions?
 - a. When it involves minors, we usually turn them over to their parents/guardians and if these parents/guardians are found incapable, we turn over to the DSWD. At present, there are at least 12 under custody of the DSWD.
 - b. But if the subject is at age, we immediately file the case at the prosecutor's office. But due to the functional tribal justice process in our Province/City, majority of these cases were amicably settled. Only a small percentage undergoes regular court process and these commonly involves cases like violations of the Comprehensive Drug law as well as illegal possession of firearms.

Correlation Between Rice/Food Production And Crime Occurrences

Table14: Correlative Table for Loss of Production and Crime Incidence

Particulars	Total areas	Total loss as of 2015-2020
Total areas/ loss of irrigated areas	11,971 hectares	4,203.91 hectares (35.11%)
Rice production	gross production	loss in rice production
	1,567,480 bags per yr	840,782.7 bags loss per yr
CRIME INCIDENCE	INDEX 2015-2020	NON-INDEX 2015-2020
Total	339	840

In the table, we cannot see any direct correlation within the figures but by the results of the interview with the respondent's agencies the following comes out:

From the City Planning Office, DA and DAR

- a. For the loss of rice lands and rice production, these are due to irresponsible conversions of land owners with weak political will of implementing agencies to uphold their mandates. These losses have some attributes to loss of income and employment of farmers and farm workers.

From the Office of the City Chief of Police

- a. As to crime against properties like theft, The Investigator said, yes, as you can see in terms of crimes against property, those involved are mostly minors who are either neglected or those with minimal parental supervisions. Hence they are un-employed.
- b. Per our records, most of these minors are members of displaced farm families with less parental supervision since their parents are busy finding other employment to sustain their daily needs.

Discussion

First Discussions:

1. Temporal land conversion (2015 to present: based on available data);
Gleaned from the above data, it appears that the city is in favor of commercial development rather than preservation of agricultural lands despite the warning of laws stating that no conversion of irrigated lands is allowed. From a total land area of 70,025 hectares, 16,103.5 was agricultural areas with 11,971 irrigated and 1,637 rainfed areas. Yet, the city council decided to allocate irrigated lands that reached an estimate of 4,203.91 hectares (35.11%) of the total irrigated lands form the existing 11,971 irrigated lands that leaves the city with a variance of 7,767 hectares.
Now with the CLUP the following are allowable for reclassification;
 1. Road right of way; 12,940 hectares covering the entire 42 barangay roads, provincial roads and national roads.
 2. Allowable for re-classification for commercial and residential estimated at 50meters frontal for commercial and another 50 meters for residential on both sides of the roads we have 136.95 hectares.
 3. Estimated areas illegally converted 114.4 hectares.
 Summing it up, we have remaining area of barely 2,912.15 hectares upon full implementation of the CLUP aside from blatant illegal conversions.
2. Rate of rice production loss (2016 to Oct 2020: based on available data);
In terms of production, estimating it at an average or 120 cavans per hectare we have a gross 1,567,480 cavans per year production both from irrigated and rainfed rice lands. But with the continuing loss of these rice lands due to CLUP and illegal conversions we loss 840,782.7 bags loss per year. And if these will persist within 20 years, by 2040 Tabuk City will need at least 417,022,992 kilos of rice divide it by

40 kilos per bag will translate into 10,425,574.8 bags based from conservative estimates of 1.87% population and consumption increase. The issue now is where we will get these supplies? Yet in January 29, 2019, NFA Kalinga has received 80,000 bags of imported rice which is quite alarming to an agricultural city.

Second Discussion:

3. Crime statistics from 2016 to present from the city PNP

As we can observe from the statistics given above the trend is decreasing especially on the years 2019-2020. On interview with the chief of police and the police investigator this proponent focused on crimes that have relationship with crimes against property which is identical with economic issues. Both the chief of police and the police investigator stated that on crimes of theft majority of the offenders are minors and these minors belongs commonly to families that have no steady source of income. These families mostly comes from displaced farm workers who tries to shift their source of income where they loss enough time to take care of their children hence making these children roam around the city and commit petty crimes of theft of items most especially food products.

But the decreasing trends of criminality are by all means attributed mostly to the lockdown caused by the COVID-19 Pandemic.

4. Correlate significance of rice supply with criminality rate

As of these data gathered, we cannot find direct correlation between the decreasing rice land and rice production as to crime incidence as the city is still enjoying enough surplus of 29,874,096 enough to feed at least 55,322.4 families as of date. But with the projected loss of rice lands and rice production in 20 years will give us a negative supply of 386,433,244.8 with a projected increase in population of 267,978.9 by 2040.

5. Estimated 20 years prediction for local legislation purposes.

One of the objectives of this research is the establishment of a 20 years projection for local legislations based on average increase of population at 1.74% vis a vis projected loss of rice projection based on 35.11% reduction caused by CLUP and illegal conversions. By 2040 population may hit an average of 267,978.9 families with an expected increase of rice supply at 376,332,984 kilos of rice with only an estimated 29,874,096 kilos of available rice surplus.

Findings:

1. Attributes to Rice Land Conversions:

a) For commercial Development- the urbanization development compelled the City Local Legislations to legislate in their CLUP allocations of re-classifiable areas which is about 35.11% of irrigated Areas.

b) Weak implementation of Statues- both DA and DAR aired their constraints as to why they failed in the implementation of their mandates which includes their security since the owners when given notice shows unnecessary force as they assert their right of ownership as

well as lack of support from other agencies during the service of cease and desist order.

c) Poor profit from farming- due to very low income from farm proceeds, owners decides to convert it into more profitable commercial establishments.

d) High prices offered by buyers- several land owners sold their rice land and convert it to wider agri-lands from nearby provinces like Isablea, Quirino and Cagayan.

e) Family expansion- members of families of land owners need to build their own houses, hence, the family is compelled to subdivide their rice lands into parcels for their children.

2. After effect of Rice Land Conversion:

a) Landless farm workers loss their employment resulting into no income.

b) Decrease of production against increase of population.

c) Families of landless farm workers tries to find other means of employment resulting to minimal supervision of their children that makes these children wayward and commits offenses such as theft and other property crimes.

d) Estimated impact of rice land conversion within 20 years from now shows a negative surplus of rice supply at 376,332,984 kilos which requires importation by 2040 to fill in the gap.

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