Asia Leadership Program on Sustainable Development and Climate Change

07-08 April 2014

Korea Development Institute (KDI)

School of Public Policy and Management

Sustainable Asia
Leadership Program

S3: Leadership in Action

Reframing the Future – Part 2

Governor Joey Sarte Salceda
Province of Albay, Philippines
Co-Chair, Green Climate Fund (GCF)

ADB

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on Sustainable Development and Climate Change

TYPHOON DURIAN: FINANCIAL IMPLICATIONS ON ALBAY

	Damage Sustained	Formal / Recorded Sources of Recovery	Amount	Item	Rate of Recovery
1. Public Infrastructure	**4,005**	**27%**	**3,872**		**97%**
Natl Roads/Bridges	2,700	DPWH	1,400	Spcl Item in Natl Budget	
			980	Realignment/Augmentation	
			250	Supplemental Natl Budget	
Provincial Facilities	98	GSIS	28	Insurance Claim	
Natl Health Facilities	148	DOH	78	Spcl Item in Natl Budget	
Local Health Facilities	219	Transfer	160	Spcl Item in Natl Budget	
		AECID	28	Grant	
	630	Deped	630	Spcl Item in Natl Budget	
		AECID	170	Grant	
College	210	CHED	148	Spcl Item in Natl Budget	
2. Agriculture	**903**	**6%**	**340**		**38%**
Crops	570	DA	160	Spcl Item in Natl Budget	
		DAR	180	Spcl Item in Natl Budget	
		PCIC	13	Insurance Claim	
Irrigation	333	NIA	180	Spcl Item in Natl Budget	
3. Private Housing	**10,045**	**67%**	**2,225**		**22%**
Totally Damaged: 112,074	7,845	NHA	750	Spcl Item in Natl Budget	
Partlly Damaged: 99,986	2,200	DSWD	750	Spcl Item in Natl Budget	
		USAID	125	Grant	
		NGOs	300	Grants	
		HDMF	300	P100T home improvement loans	
Total	**14,952**		**6,437**	***Recovery rate from formal sources***	**43%**
			5,078	**Recovery from private sources**	**34%**
			11,515	**Total Recovery**	**77%**
			3,437	**Unrecovered**	**23%**

P41m from claims

36% of Albay GDP in 2006

Best Province of the Philippines for 3 years based on Good Governance

PHILIPPINE DAILY INQUIRER
BALANCED NEWS, FEARLESS VIEWS

DEPARTMENT OF THE INTERIOR AND LOCAL GOVERNMENT

GAWAD PAMANA NG LAHI

Award of Excellence in Local Governance

The Province of Albay, the City of Vigan and the Municipality of Carmona, Cavite are this year's national awardees for the Gawad Pamana ng Lahi or GPL.

GPL is a total award system conceptualized by the Department of the Interior and Local Government (DILG) through the Bureau of Local Government Supervision (BLGS) to recognize provincial, city and municipal governments that show exemplary performance in governance.

Albay, Vigan and Carmona went through a highly competitive selection and validation process, along with other regional awardees in the first level assessment and with other national finalists in the second level assessment before bagging the award. The multi-sectoral and select Board of Judges was composed of representatives from the DILG, Union of Local Authorities of the Philippines (ULAP), civil society organizations, national government agencies, local resource institutions and the academe.

Criteria for the award are as follows:

- **The LGU must be an SGH-Silver recipient.** Being a recipient of the Seal of Good Housekeeping-Silver Award is an indication of transparent and accountable governance. It particularly looks at the following elements: (1) Full disclosure of Financial documents; (2) No adverse opinion by the Commission on Audit; (3) Compliant to procurement policy, i.e. posting in PhilGEPS; and (4) Passer of the Anti-Red Tape Act-report Card Survey designed by the Civil Service Commission.
- **The LGU must achieve a High Overall Performance Index in the Local Governance Performance Management System or LGPMS.** The LGPMS is a total performance measurement tool which looks at the capacity of local governments in various areas of governance such as administration; local legislation; revenue generation and resource utilization; social governance; economic governance and environmental governance.
- **The LGU must showcase innovations** that lead to better service delivery.
- **The LGU must be a recipient of a National or International Award in Governance.**

For demonstrating exemplary performance in local governance, Regional and National Winners of the Gawad Pamana ng Lahi (GPL) are given incentives through the Performance Challenge Fund (PCF) aside from automatically passing the Seal of Good Housekeeping (SGH) assessment. National GPL winners each receive a cash prize of P5Million, while regional awardees bag P3Million, P2Million and P1Million for the province, city and municipality categories, respectively.

With the Gawad Pamana ng Lahi, we expect more LGUs to practice participative, responsive, transparent and accountable local administration in the delivery of essential services for every Filipino.

GAWAD PAMANA NG LAHI 2012 NATIONAL AWARDEES, NATIONAL FINALISTS AND REGIONAL AWARDEES

NATIONAL AWARDEES

- Province of Albay
- City of Vigan
- Municipality of Carmona, Cavite

NATIONAL FINALISTS

PROVINCE	CITY	MUNICIPALITY
Cavite Benguet Nueva Vizcaya	Makati City Puerto Princesa City Santiago City Tacurong City	Anilao, Iloilo Jagna, Bohol Monkayo, Compostela Valley San Nicolas, Ilocos Norte

REGIONAL AWARDEES

REGION	PROVINCE	CITY	MUNICIPALITY
I	Pangasinan	Vigan City	San Nicolas, I. Norte
II	Nueva Vizcaya	[illegible]	[illegible]
III	Tarlac	[illegible]	[illegible]
IV-A	Cavite	Batangas City	Carmona, Cavite
IV-B	Palawan	Puerto Princesa City	Sablayan, Occ. Mindoro
V	Albay	Ligan City	Tiwi, Albay
VI	Negros Occidental	Iloilo City	Anilao, Iloilo
VII	Bohol	Dumaguete City	Jagna, Bohol
VIII	Leyte	Tacloban City	No RGPL Awardee

18/03/2013 11:18

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UN body lauds decline in Albay teen pregnancies

By Cet Demateras (The Philippine Star) | Updated March 18, 2013 - 12:00am

LEGAZPI CITY, Philippines – The pregnancy rate among teenagers in Albay has declined in the past two years, thanks to direct reproductive health interventions and education assistance programs.

During the signing of a letter of understanding with the provincial government last week, United Nations Population Fund Agency (UNPFA) country representative Ugochi Daniels said teenage pregnancy in the Philippines surged by 70 percent from 1999 to 2009.

Daniels said a strong advocacy campaign is needed to educate and advise Filipino female teens about the dangers of early pregnancy and to inform them about reproductive health in general.

Daniels though noted the decline in Albay's teenage pregnancies in the past two years, listing the province among those with low pregnancy rates in the country.

Gov. Joey Salceda, quoting a report from the Albay Provincial Population Office, said the province's teenage pregnancy rate had dropped by eight percent, or from 1,700 cases in 2011 to 1,571 in 2012.

"Albay has one of the lowest teenage pregnancies (in the Philippines) at only 24 births per 1,000 women aged between 15 and 19 versus a national rate of 53 births per 1,000 women aged between 15 and 19," Salceda told The STAR in an e-mail.

Aside from direct reproductive health interventions being jointly implemented by the provincial government, UNPFA and the Department of Health that resulted in the decline in teenage pregnancies, Salceda said massive education-based programs also significantly contributed to this.

"Intuitively, the second most likely reason for the low teenage pregnancy in Albay was our aggressive college tuition financing," he said.

"Our tertiary beneficiaries leapt to 34,000 in 2012 from only 14,600 in 2010. Keep the kids busy, keep them in school. In the long run, higher educational attainment should lead to higher career ambitions, therefore greater deferral of marriage and thus pregnancies," Salceda added.

BREAKING NEWS

- Review: The Incredible Burt Wonderstone March 19, 2013 - 8:50am
- Orthodox patriarch to Rome for pope's installation March 19, 2013 - 7:12am
- '100 Things to Do Before You Die' on TLC this March 21 March 19, 2013 - 7:05am
- New lovers announced for Broadway's 'Once' March 19, 2013 - 6:59am
- Lindsay Lohan headed to rehab after plea deal March 19, 2013 - 6:54am
- Delicate diplomacy: Pope meets Argentine president March 19, 2013 - 6:15am

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Feb 24, 2013

Manila Standard TODAY 26th year

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PREVIOUS ARTICLE | NEXT ARTICLE

After 49% growth, Albay now among hottest destinations

By Manila Standard Today | Posted on Feb. 24, 2013 at 12:01am | 1,567 views

Legazpi City – Albay posted a 49-percent leap in tourist arrivals last year, establishing it as the leading tourism hub and the fastest growing destination in the country, according to data from the Department of Tourism.

The DOT report shows that Albay's recorded foreign tourists' arrival growth in 2012 was 23%, higher than the 9.07% national growth rate. "The jury is in. The tourists have spoken," said Albay Gov. Joey S. Salceda, who expressed elation over the DOT report.

"With our 49% plus arrival growth in 2012, Albay is the fastest growing tourist destination, almost doubling in domestic tourism and 23% plus in foreign tourist arrivals. More so, out of the 251,000 incremental tourists for Bicol, Albay had a market share of 67%. This means two out of every three new tourists visited Albay," the governor said.

The DOT report for Bicol showed that Albay had 523,832 arrivals in 2012 as against 350,629 in 2011. Sorsogon comes second, with 31% growth.

"With our target of 500,000 foreign tourists by 2017, we need to double our hotel room capacity in the next two years. For 2013, we are looking for a home-stay program to fill the gap," he said.

Salceda said Albay's year-round festivals helped, most particularly the ongoing, month-long Cagsawa Festival because it offers a new look at Mayon Volcano and the historic Cagsawa Ruins, both international tourism icons.

He added that the growth may also be attributed to, among others; the consistent monthly advertisings, full operation of international standard Oriental Hotel and the Misibis Bay Resort, the successful launching of Cagsawa 2012, and the upscaling of virtually all town festivals even for small municipalities such as Pioduran, Manito and Jovellar.

Based on a Cebu Pacific survey, Magayon Festival, which will be celebrated this April, had a 14.7% market share of top-of-mind Philippine festivals, third to Sinulog of Cebu and Bangus festival of Pangasinan.

Cagsawa Ruins, for its part, recorded a total of 322,000 "paying" visitors in 2012 out of the recorded 561,000 tourists. This means that more than three out of every five tourists who came to Albay, visited the Ruins, making it the most visited destination in the province.

Salceda said they expect to sustain if not surpass the 2012 performance this year, by aggressive foreign reintroduction of Albay particularly in the Berlin ITB travel trade show in March, closer collaboration with key tourism stakeholders, like Misibis and Oriental in promotion, and pushing fully the ALMASOR (Albay-Masbate-Sorsogon) tour package, which enhances the structural attractiveness of all three provinces in synergistic positioning and brand franchising.

Salceda, who chairs the Bicol Regional Development Council, organized the Almasor tourism alliance now dubbed as the "Soul of the South." Very recently, Albay staged the Daragang Magayon ballet at the Cultural Center of the Philippines, as part of its effort to boost its tourism program. It drew raves and made a record in local art history.

manilastandardtoday.com/2013/02/24/after-49-growth-albay-now-among-hottest-destinations/

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Mar 29, 2014

THE DAILY tribune
Without fear or favor

ALBAY NOW A TOURISM POWERHOUSE WITH 66% GROWTH

Written by Tribune | Saturday, 29 March 2014 00:00 | font size − + | Print | Be the first to comment!

LEGAZPI CITY — Albay, with its exciting natural wealth and strong sales pitch that brought in some 800,000 foreign and local tourists in 2013, has now emerged as the country's tourism powerhouse. It posted an "astounding tourism growth rate of 66 percent" last year.

Tourism Assistant Secretary Benito Bengzon, who handles the Department of Tourism (DoT)'s international promotion, disclosed these figures when he guested at the March 24 opening of the Daragang Magayon Festival 2014, one of the country's longest and foremost festivals with substantial contributions to the country's tourism industry.

Addressing his huge audience here, Bengzon said Albay "is poised for tourism supremacy" backed up by a direct connection to the international market, an original and successfully designed tourism branding, and a strong leadership that binds together all the stakeholders toward one goal and under one vision."

The Daragang Magayon Festival, he said, is one of the most popular and most visited festivals in the country. "Its popularity is a testament to all the hard work of your governor and all the stakeholders involved in the pursuit for excellence," he added.

Bengzon cited four factors that made Alboy a tourism powerhouse: inviting fun destinations, direct connectivity with the international tourism market, successfully developed tourism branding which has created "an impressive portfolio that captures the imagination," and effective local governance and leadership.

On its direct connectivity with the international tourism market, he cited the offloading here recently of two direct flights from China, which he said will futher be consolidated with the completion and opening of the the Southern Luzon International Airport in the province by 2016, Regarding Albay's successfully designed and developed local tourism branding, Bengzon said the idea of Albay as an inviting and fun tourist destination seems to have captured the imagination of the fotreign tourist market.

Complementing these considerations and "the most important," he added, is the strong local leadership that has "successfully converged all stakeholders to work in achieving one goal under one vision."

Daragang Magayon Festival, now on its 14th year of month-lohg observance, has has also proven to be the most participated festival in Bicol. This year's first day presentation, Festival of Festivals, was joined by eight competing contingents from the region's six provinces.

Albay's First Pili Festival has also also been incorporated in the Daragang Magayon Festival 2014. The Pili nut is a major industry in Bicol and Albay, with the widest land area planted to Pili, is now the biggest producer of Pili delicacies and hand crafts.

Published in Nation

Albay jumps from 117th to 35th rank in education

MANILA BULLETIN
THE NATION'S LEADING NEWSPAPER
Manila Bulletin – Fri, Apr 4, 2014

Legazpi City, Albay — From its ranking of 117th in 2007, Albay's education ranking has leveled up to 35th in the overall National Achievement Test (NAT) this year for graduating elementary and secondary students.

The NAT, now on its seventh year of administration, determines knowledge and mastery of students in select subjects such as English, Math, Science, Filipino, and History.

At the launching of the 2014 Gawad ALBAY sa Edukasyon held at the Albay Provincial Capitol last Tuesday, the Department of Education (DepEd) in the region made the announcement.

Albay ranked 177th of 190 before the creation of the Provincial Education Department (PED) in 2007, then known as Project EQUAL when first created by Gov. Joey Salceda in his first term,

With the PED, composed of public and private educators and other stakeholders, Albay immediately experienced improvements even reaching 19th place in 2008 and 2009, its highest ranking so far.

Although dropping to 35th for 2013 Albay is still on track in its goal of never falling beyond 40th place and on its way to reach a Top Ten placement by 2016.

Forest Cover Change, Albay Province (2003 VS 2010)

Description	Land Area (Hectares)	% against total land area
Total land area	256,677.00	100 %
2003 forest cover	26,298.71	10.25 %
2010 forest cover	44,891.16	17.49 %
Forest cover change:	*Land Area (Hectares)*	*% increase*
Increase in forest cover in 7 years	*18,592.45*	*88 %*
Annual rate of gross forest cover increase	**2,656.06 ha/year**	**5.92 percent /year**

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Major Disaster Events in Albay Province 1994-2013:

Zero Casualty in 19 years except 2006 and 2011

Calamities	Date	Affected Population		Damage Cost (Php)
		Persons	Dead	
Typhoon Mameng	Sep 28 1995	10,126	0	71,499,797
Typhoon Rosing	Nov 1 1995	440,372	0	539,599,785
Typhoon Pining	Nov 12 1997	1800	0	37,663,000
Typhoon Loleng	Oct 15 1998	201,834	0	303,950,141
Typhoon Sendang	Nov 7 1999	1,122	0	110,000
Mayon Volcano Eruption	1999	68,626	0	284,076,061
Mayon Volcano Eruption	2001	46,914	0	11,937,460
Typhoon Dindo	May 13 2004	33,892	0	226,712,081
Typhoon Unding	Nov 14 2004	1744	0	42,394,231
Typhoon Yoyong	Dec 4 2004	18,372	0	50,590,299
Tropical Storm Caloy	May 9 2006	47,065	0	99,346,841
Mayon Volcano Eruption	2006	40,451	0	50,590,299
Typhoon Milenyo	Sep 25 2006	698,460	14	1,665,316,133
Typhoon Reming	Nov 28 2006	1,060,875	618	3,230,435,702
Typhoon Mina	Nov 21 2008	214,734	0	22,800,000
Typhoon Frank	Jun 18 2008	138,937	0	21,789,000
Typhoon Dante	May 1 2009	49,712	0	238,316,148
Typhoon Pepeng	Oct 9 2009	89,926	0	9,000,719
Typhoon Santi	Oct 30 2009	671,314	0	6,510,000
Mayon Volcano Eruption	July 2009	47,563	0	16,659,000
TS Chedeng	May 25 2011	221,094	0	5,710,768
TS Falcon	June 22 2011	107,253	0	46,762,630

MDGs are achieved ahead of 2015 exc. MDG 2 and 7

Goal	Indicator	Bicol Region	Albay
1	Poverty Incidence	M	H
	Subsistence Incidence	H	H
	Underweight (IRS)	H	H
2	Participation - Elem	L	H
	Cohort survival - el	M	M
3	Gender parity - ele	H	H
4	Under-five mortalit	H	H
	Infant mortality	H	H
	Proportion of fully-	M	H
5	Maternal mortality	L	H
	Contraceptive prev	L	M
	Condom use rate	L	M
6	Deaths due to TB	L	H
	Malaria positive cases	H	H
7	Household with access to sanitary toilets	H	L
	Household with access to safe drinking water	H	H

MDGs make adaptation and mitigation "socially desirable"

Legend:

L	low probability	H	high probability
M	medium probability		no data

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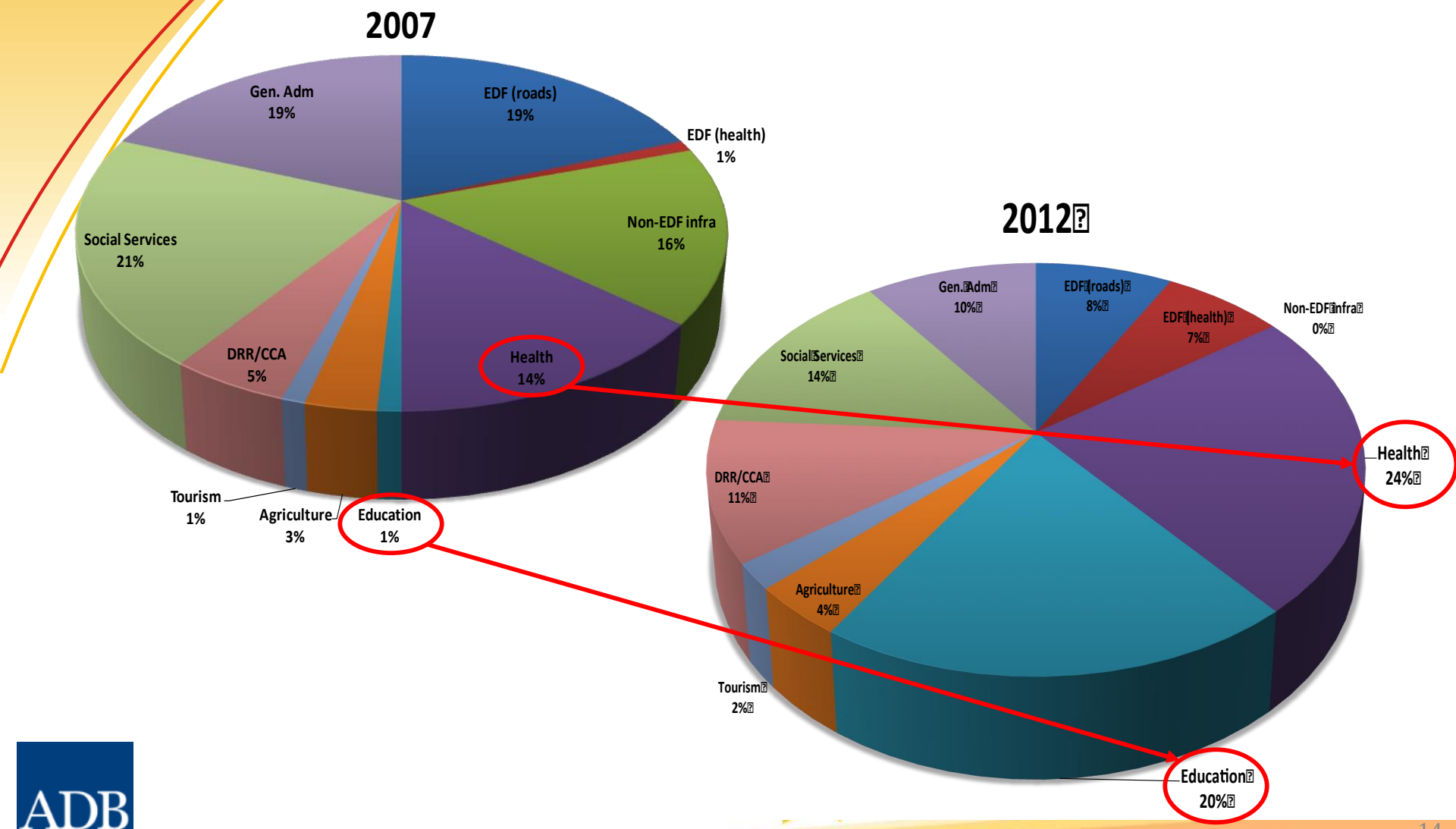
Intl and National Recognition of Albay DRR / CCA

- ☑ **Culture of reduction**: no risk= no response, no damage, no casualty
- ☑ **Rights-based**: **Social justice**; state duty to defend the vulnerable
- ☑ **Goals-oriented: MDGs, Zero Casualty, Better Lives**
- ☑ **Whole of Budget**, **Whole of Gov't, Whole of Society**: Team Albay, CSOs most vital link
- ☑ **Adaptation and Mitigation must be in the development mix**

CORE PHILOSOPHY

Albay Provincial Budget

more budget in Health and Education



CULTURE OF RISK REDUCTION
not culture of response

- Reduction of risks boosts development. Development reduces risks. Therefore, development in vulnerable (poor) nations is adaptation.
- Poverty is key source of vulnerability- risky locations like danger zones and riverbanks are cheap.
- A well-educated, well-trained, healthy and well-employed population is a resilient population. [eg. Well-timed CCT in Manito enabled zero casualty in 2010 and 2011]
- Adaptation and DRR is an investment.
- No relocation, if homes are built safely. No evacuation, if vulnerable are relocated. No rescue, if evacuated. No rehab, if homes are built safely.

WHOLE OF BUDGET,
WHOLE OF GOVERNMENT
WHOLE OF SOCIETY

- TEAM ALBAY essentially applies the UN cluster approach on a continuous basis given the persistence of localized climate disasters
- Seamless local – national collaboration, civilian-military, public-private, govt-CSOs
- 11 major humanitarian interventions provided actual

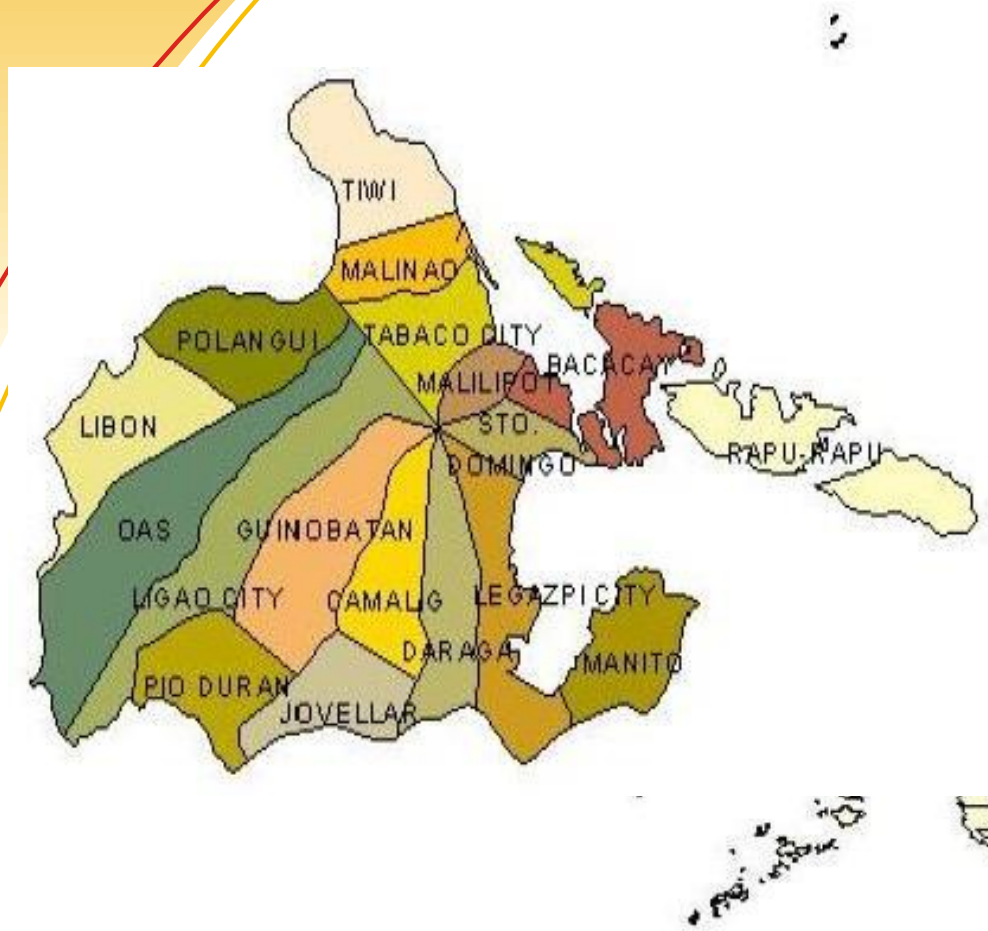
RIGHTS-BASED
Fairness to the poor, Fairness to the Future

- Climate disasters kill poor people, make the poor poorer and breed more poor people; thus, constitutes a moral failure. Social justice is the fundamental basis of DRR/CCA.
- It is the primordial duty of the state [and the civic duty of its elite and the markets they control] to save the vulnerable from disasters, climate change
  - The more disasters: the higher the rights of the vulnerable, the higher the duties of the state.
  - **Zero casualty goal is a desirably ambitious and a socially desirable goal of the nation**
- People have the basic right to the capacity to adapt. Relief, recovery and rehab is essentially a compensation [penalty] of the state for failing to reduce exposure and to increase capacity.

Adaptation and Mitigation should be in the development mix

- Even if Ph accounts for only 0.2% of global emissions, mitigation or low emission development pathway is a moral responsibility. In Albay, we teach it as a “civic duty” of every citizen.

Province of ALBAY



- Land Area = 2,566 sq. km.
- Population = 1,233,432 (May 2010)
- Households = 231,750
- 3 legislative districts; 3 cities, 15 municipalities
- 2nd largest Province in the Bicol Region
- 4 major islands (CRaBS)
- Total coastline of 364 kms with 149 coastal barangays and 128,751 people

Disaster Risk and Vulnerability of Albay

- 19 to 21 occurrences of typhoon per year in the Philippines of which 3-5 major direct hits on Province of Albay.
- About 198,000 houses threatened by wind destructions and at least 350,000 people have to evacuate.
- Mayon Volcano eruption threatens 3 cities and 5 municipalities
- 127 villages or 11,000 to 12,000 families threatened by landslides
- About 300,000 population out of 1.2M threatened by tsunami
- Eight municipalities and two cities threatened by floods.

Vatican of Disasters

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Jan 2014 Disaster Risk Assessment

NAME OF CITY/ MUNICIPALITY	FLOODING					LANDSLIDE					MUDFLOW / LAHAR				
	No. of Bgys Affected	Families Affected	30% of the Affected families	Population	30% of the population	No. of Bgys Affected	Families Affected	100% of the Affected families	Population	100% of the population	No. of Bgys Affected	Families Affected	40% of the Affected families	Population	40% of the population
1. TIWI	17	1,987	596	10,281	3,084	8	934	934	4,794	4,794			-		-
2. MALINAO	26	2,991	897	14,589	4,377	12	1,874	1,874	5,547	5,547			-		-
3. TABACO CITY	40	1,062	319	5,535	1,661	2	122	122	645	645	11	5,134	2,054	28,008	11,203
4. MALILIPOT	17	608	182	3,173	952	6	209	209	942	942	3	1,476	590	7,298	2,919
5. BACACAY	53	1,193	358	6,207	1,862	7	451	451	2,396	2,396	1	2,505	1,002	6,980	2,792
6. STO. DOMINGO	14	464	139	2,425	728	5	446	446	1,563	1,563	5	2,990	1,196	12,834	5,134
7. LEGAZPI CITY	66	16,372	4,912	84,182	25,255	10	305	305	1,611	1,611	8	5,348	2,139	23,814	9,526
8. RAPU-RAPU	33	1,392	418	7,993	2,398	5	522	522	2,643	2,643			-		-
9. MANITO	12	958	287	5,802	1,741	13	1,063	1,063	6,376	6,376			-		-
10. DARAGA	26	2,393	718	11,584	3,475	6	669	669	3,450	3,450	17	10,431	4,172	47,888	19,155
11. CAMALIG	23	4,604	1,381	24,105	7,232	10	822	822	4,228	4,228	7	3,220	1,288	16,075	6,430
12. GUINOBATAN	18	2,923	877	15,214	4,564	4	14	14	84	84	8	4,545	1,818	18,948	7,579
13. JOVELLAR	13	302	91	1,603	481	3	54	54	282	282			-		-
14. LIGAO CITY	29	897	269	4,608	1,382	21	1,928	1,928	10,052	10,052	7	2,080	832	10,820	4,328
15. PIODURAN	10	1,691	507	8,799	2,640	9	134	134	699	699			-		-
16. OAS	18	1,946	584	13,663	4,099	11	1,841	1,841	9,530	9,530			-		-
17. POLANGUI	25	7,136	2,141	35,999	10,800	12	1,115	1,115	5,777	5,777			-		-
18. LIBON	28	7,465	2,240	38,822	11,647	8	819	819	3,345	3,345			-		-
TOTAL	**468**	**56,384**	**16,915**	**294,584**	**88,375**	**152**	**13,322**	**13,322**	**63,964**	**63,964**	**67**	**37,729**	**15,092**	**172,665**	**69,066**

Sources: MGB V; CDCCs/MDCCs/BDCCs; NSO 2007

NOTE: Some of the population threatened by Mayon Volcano eruption are also threatened by other hazards like flood and lahar due to weather hazards. Some Coastal Barangays which are threatened by Storm Surge/Tsunami are also threatened by flooding. Hence, overlapping on total number of population (by barangay) affected by 2 or more types of hazards is possible.

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Resources for Institutionalized DMO

- **Permanent office: APSEMO**
  - Created in 1994 by ordinance in 1994 with regular plantilla of 25 including emergency research and disaster specialists.
  - First in the Philippines and First in Asia
  - has managed and survived disasters [including 7 governors!]
- **Sources of Funds**
  - Regular allocation from the annual provincial budget (IRA) separate from CF
  - Access to calamity fund for the operations 5% of IRA
  - Intermittent but steady flow of technical and logistical assistance from NG agencies, NGOs and INGOs for capacity building and skills training

Resources for Institutionalized DMO

Resources for Institutionalized Climate Office

- **Program office: CIRCA**
  - created by ordinance in 2007 with regular provincial budget
  - Implement MDG-F JP
    - Localized climate scenario
    - climate-proof CLUP
    - Integration of climate change into curriculum (Gr 4 to 4th year)
  - Advocacy and knowledge management
    - National Conference on Climate Change Adaptation (2007, 2009)
    - LGU Summit (2010)
    - Climate Change Academy
      - Disaster City
      - Climate sciences center at Bicol University
- **Sources of Funds**
  - Regular allocation from the annual provincial budget (IRA)
  - P16m from MDG-F JP
  - Intermittent but steady flow of technical and logistical assistance from NG agencies, NGOs and INGOs for capacity building and skills training

Resources for Institutionalized Training

- **Program office: CCA/DRRM Training Institute**
  - Began as Climate Change Academy initiated by UNDP, CCC and Provincial Govt of Albay
  - Now installed as CCA DRR Training Institute by OCD under RA 10121 for Regions 4A, 4B, 5, 6, 7, 8
  - Office inaugurated by President Noy Aquino and visited by Queen Sofia of Spain
  - A knowledge hub or institution for knowledge management
    - International trainees- Laos, Myanmar, Cambodia, Vietnam, Kenya, Nigeria and Timor Leste
    - Local- 7 regions, 26 provinces, 31 cities, 210 towns and numerous barangays
- **Sources of Funds**
  - Regular allocation from the annual provincial budget (IRA)
  - Implement P5m from DENR and P30m from OCD

Resources for Institutionalized MDG Office

- **Program office: AMDGO**
  - created by ordinance in 2009 with regular provincial budget
  - Oversight to MDG performance and secretariat to MDG Supercom
  - Management MDG projects
    - Manages relocation program
    - Social assets programs esp livelihood like SEA-K, ETODA
    - CRABS or coastal and marine resources management
    - AIDS Council – HIV/AIDS advocacy
- **Sources of Funds**
  - Regular allocation from the annual provincial budget (IRA)
  - Intermittent but steady flow of technical and logistical assistance from NG agencies, UNDP and other UN offices, INGOs, NGOs for capacity building and skills training

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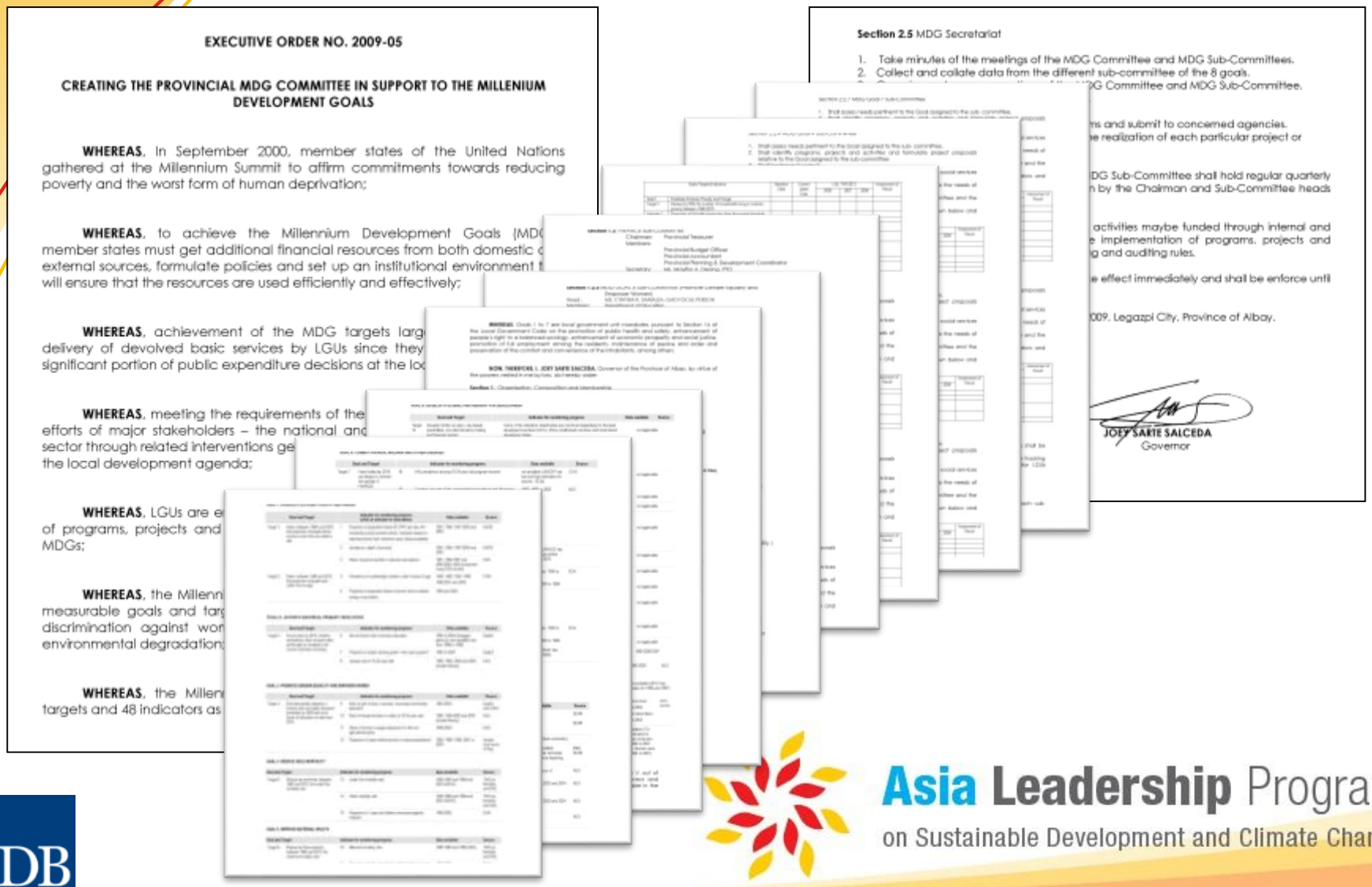
Albay MDG Supercom



EXECUTIVE ORDER NO. 2009-05

CREATING THE PROVINCIAL MDG COMMITTEE IN SUPPORT TO THE MILLENIUM DEVELOPMENT GOALS

WHEREAS, In September 2000, member states of the United Nations gathered at the Millennium Summit to affirm commitments towards reducing poverty and the worst form of human deprivation;

WHEREAS, to achieve the Millennium Development Goals (MD member states must get additional financial resources from both domestic external sources, formulate policies and set up an institutional environment will ensure that the resources are used efficiently and effectively;

WHEREAS, achievement of the MDG targets larg delivery of devolved basic services by LGUs since they significant portion of public expenditure decisions at the lo

WHEREAS, meeting the requirements of the efforts of major stakeholders – the national and sector through related interventions ge the local development agenda;

WHEREAS, LGUs are e of programs, projects and MDGs;

WHEREAS, the Millenn measurable goals and tar discrimination against wor environmental degradation;

WHEREAS, the Millen targets and 48 indicators as

Section 2.5 MDG Secretariat

1. Take minutes of the meetings of the MDG Committee and MDG Sub-Committees.
2. Collect and collate data from the different sub-committee of the 8 goals.

G Committee and MDG Sub-Committee.

ns and submit to concerned agencies.
e realization of each particular project or

DG Sub-Committee shall hold regular quarterly
n by the Chairman and Sub-Committee heads

activities maybe funded through internal and
e implementation of programs, projects and
g and auditing rules.

e effect immediately and shall be enforce until

009, Legazpi City, Province of Albay.

JOEY SARTE SALCEDA
Governor

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Resources for Institutionalized Training

- **Program office: Emergency Paramedic Training Institute**
  - Initiated by Bicol University, DOH-BRTTH and Provincial Govt of Albay
  - Organic unit of Bicol University
  - Funded by AECID-PGA
  - Training of EMTs with certifications from DOH and TESDA
- **Sources of Funds**
  - Training grants earmarked for EMT
  - Provincial Govt, DOH

Resources for Institutionalized Humanitarian Missions

- **Program office: Team Albay**
  - Assisted OCD V and national government in 11 humanitarian situations
  - First on the ground during Yolanda
  - Provision of:
    - Search and Rescue and Retrieval (half of cadavers in Yolanda)
    - Water filtration and delivery (1.4m liters delivered in Yolanda)
    - Camp Management
    - Health Emergency Services
    - Operation of Pharmacy
    - Operation of Hospital (Cateel)
    - Operation of Public Health Operations (Yolanda)
    - Post Disaster Health Intervention System
    - Advisory to LGUs on PDNA (SAMAR)
    - Advisory to LGUs on ERRPs (SAMAR, Leyte)
- **Sources of Funds**
  - Provincial DRRMF Fund
  - Assistance from intl NGOs

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Pres. Instruction in Yolanda: Public Health operations

Highlights of DRR/CCA Programs

- **Risk Mapping**
  - Comprehensive Land Use Plans
- **Integration into PDP, PDIP, AIP, PPMP**
- **Geostrategic Intervention (Go)**
- **Relocation (Go)**
- **Engineering Interventions (Defend)**
- **Social Preparations (Run)**
  - Community-based Warning and Evacuation Planning
  - Close coordination with Warning Agencies
- **Capacity Build-up**
  - Mobility Assets
  - Permanent Evacuation Center
- **Disaster Response**
  - Pre-emptive Evacuation
  - Pre-emptive Healthcare
- **Cluster Approach to Recovery and Rehab**

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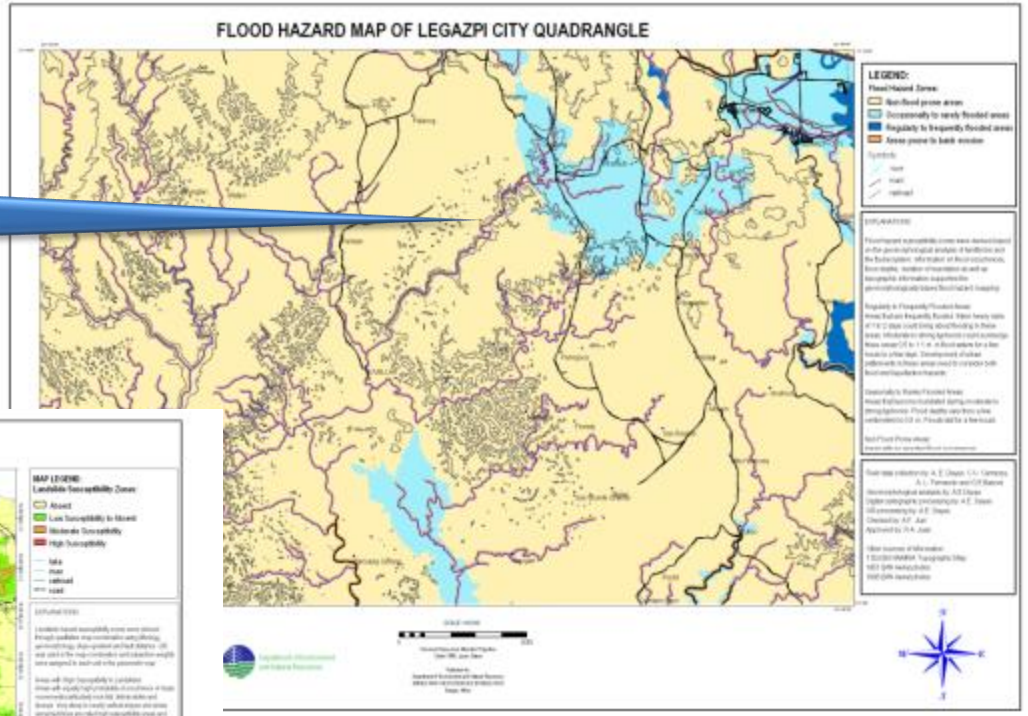
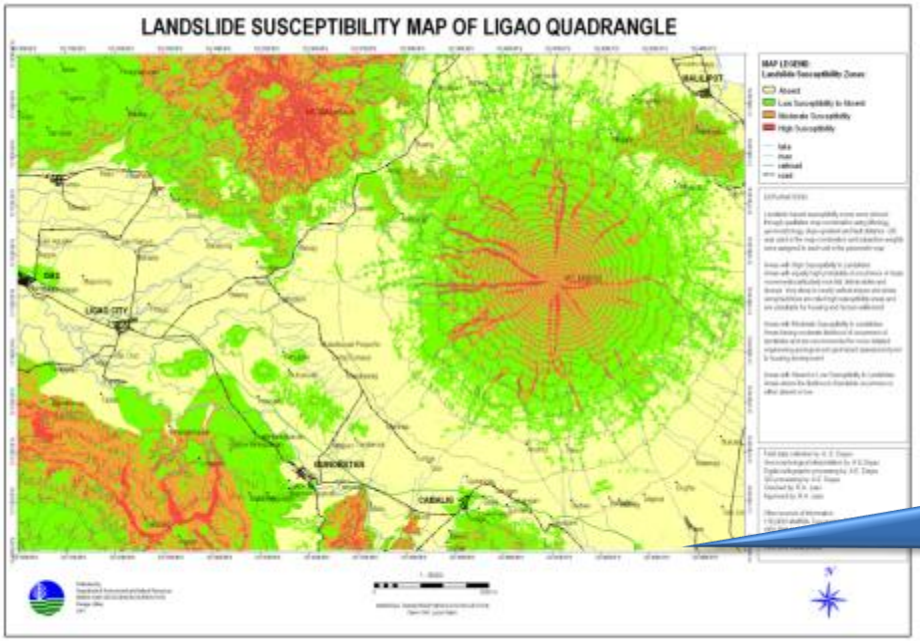
Risk Reduction: Risk Mapping

- **Risk mapping**
  - Risk mapping is a common resource to all phases of DRR- risk mitigation, preparedness, damage assessment, response, relief and recovery
- **Sources of Funds**:
  - **PHIVOLCS**
    - Earthquake mapping
    - Volcanic Hazard Mapping
    - REDAS training for LGUs
    - Tsunami
  - **PAGASA**
    - Flood Mapping
  - **Mines and Geo-Sciences Bureau**
    - Landslide mapping
  - **Manila Observatory**
    - Mudflow (Lahar) mapping
  - **Component LGUs (but technical assistance from province)**
    - Population and Resource Mapping
    - Comprehensive Land Use Plan

Hazard Maps

Legazpi FLOOD Map





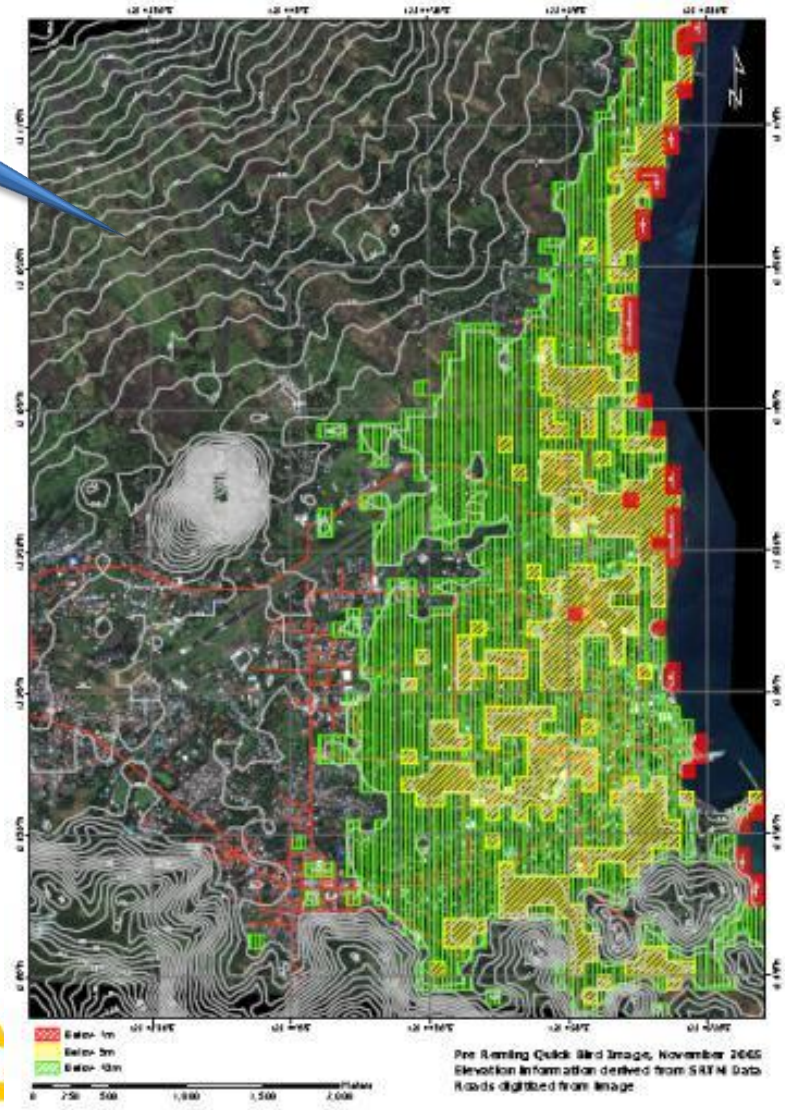
Ligao LANDSLIDE Map

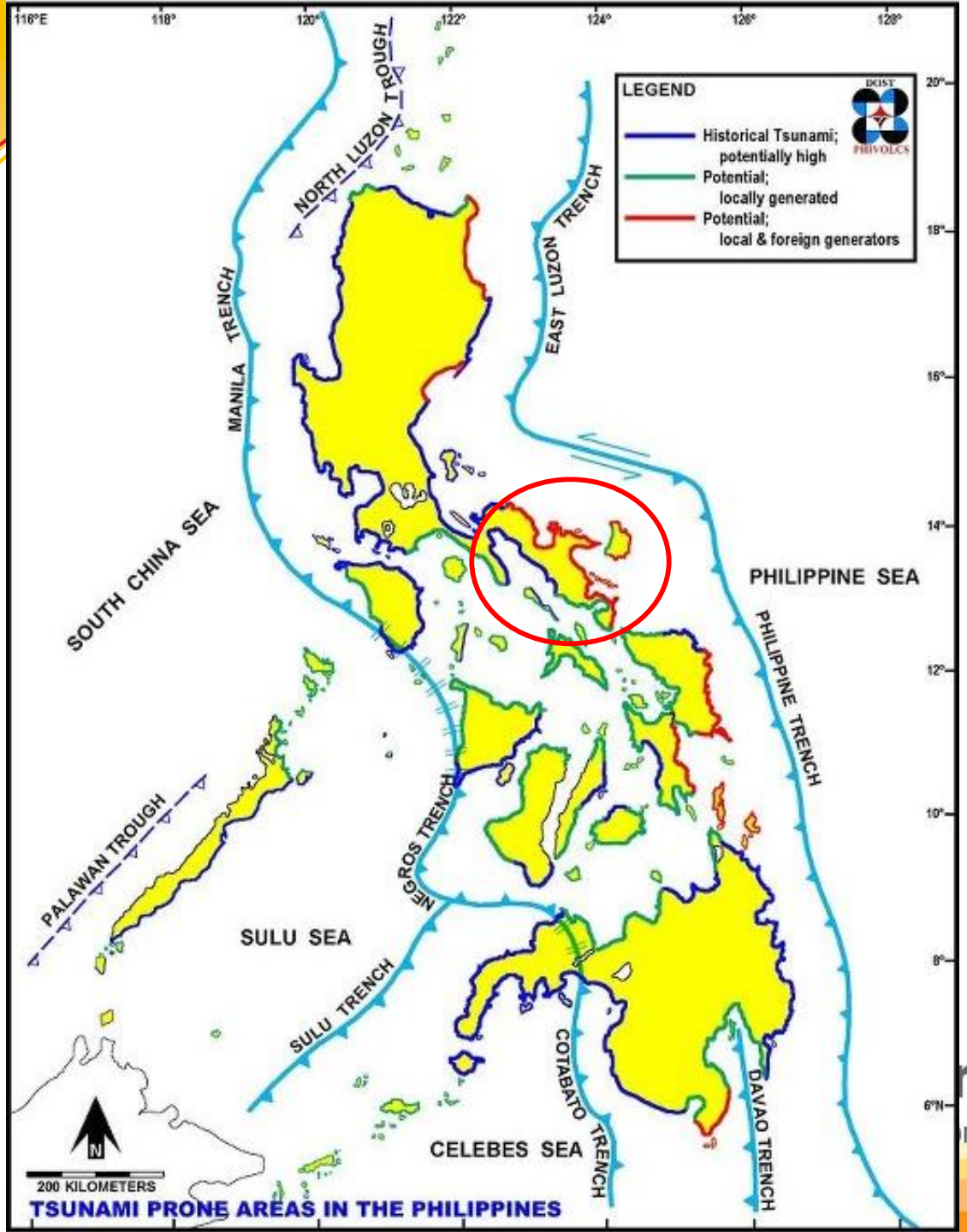
gram
on Sustainable Development and Climate Change

Earthquake /Tsunami Hazard Map

FAULTS

TSUNAMI





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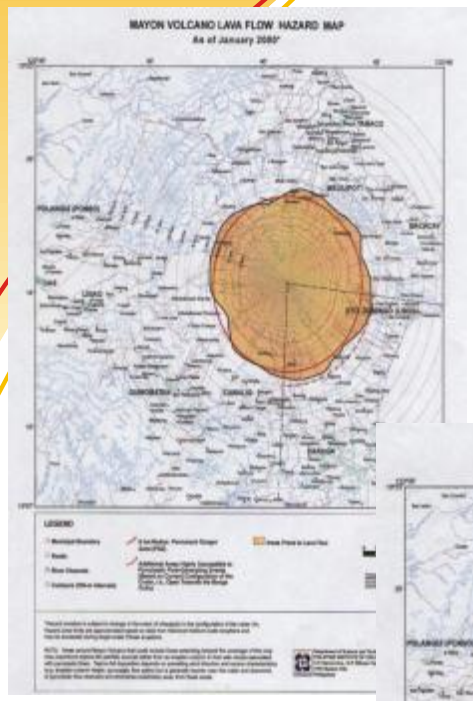
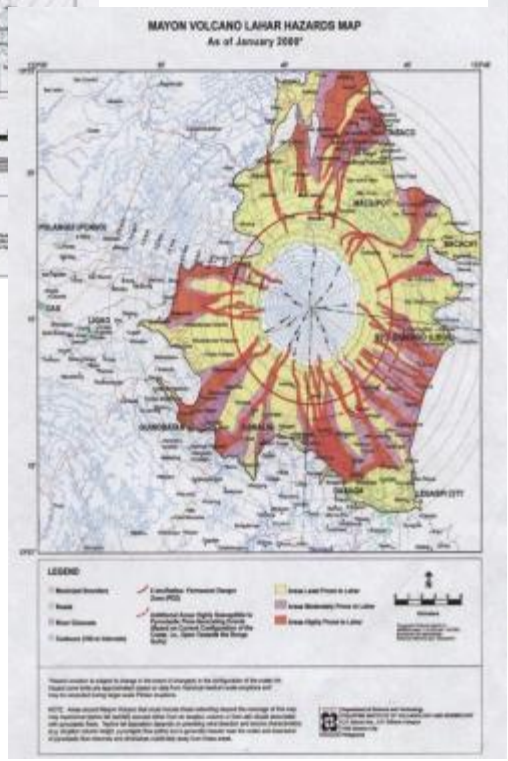
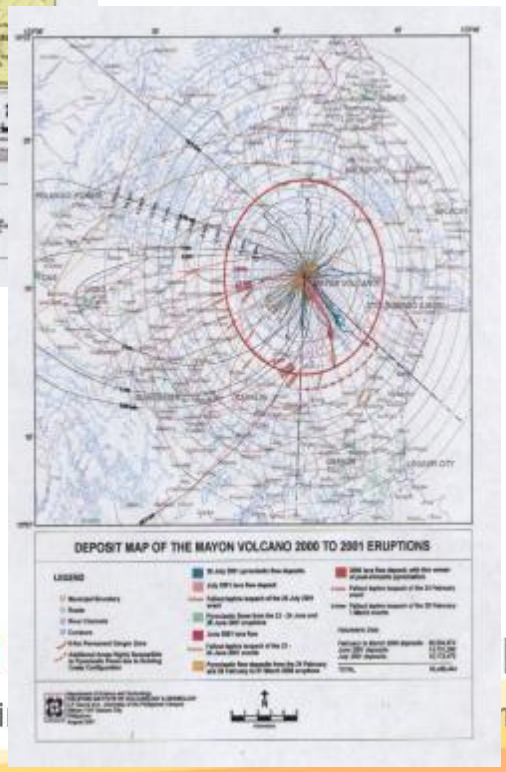
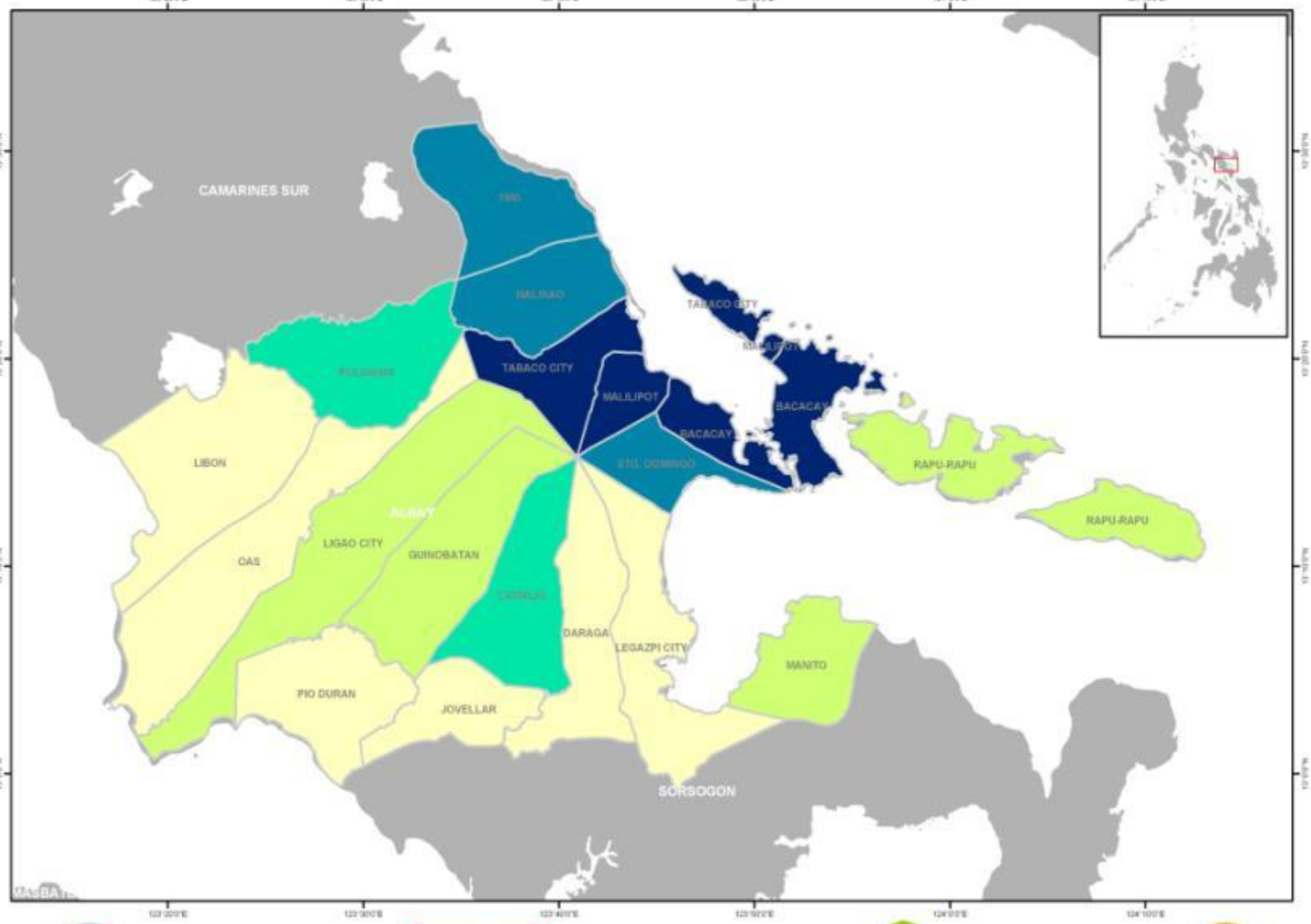
Volcanic Hazard Map







Typhoon Risk Map of Albay Province, Philippines



LEGEND

- Municipal Boundary

Risk

- Very Low
- Low
- Moderate
- High
- Very High

MAP INFORMATION

This map illustrates the risk posed by typhoon in Albay province.

High risk areas are municipalities that are frequently hit by strong typhoons, as well as, being densely populated with high poverty incidence.

Typhoon is the name given to a tropical cyclone with maximum sustained winds of 64 knots or near the center in the western North Pacific (WMO)

Risk (R) is the product of the Hazard (H), Exposure (E) and Vulnerability (V) or R=HEV where:

H = Typhoon Hazard Score
E = Population Density
V = Poverty Incidence

The Typhoon Hazard Score (H) was computed for each municipality of the study area using the formula:

$$H = \Sigma (w2 \times A) / M$$

Where w is the weight based on the frequency of typhoons with wind velocity above 100kph, A is the area of the typhoon hazard, and M is the area of the municipality.

Population density is the number of persons per square kilometers. Poverty incidence is the proportion of the poor population to the total population based on the per capita poverty threshold.

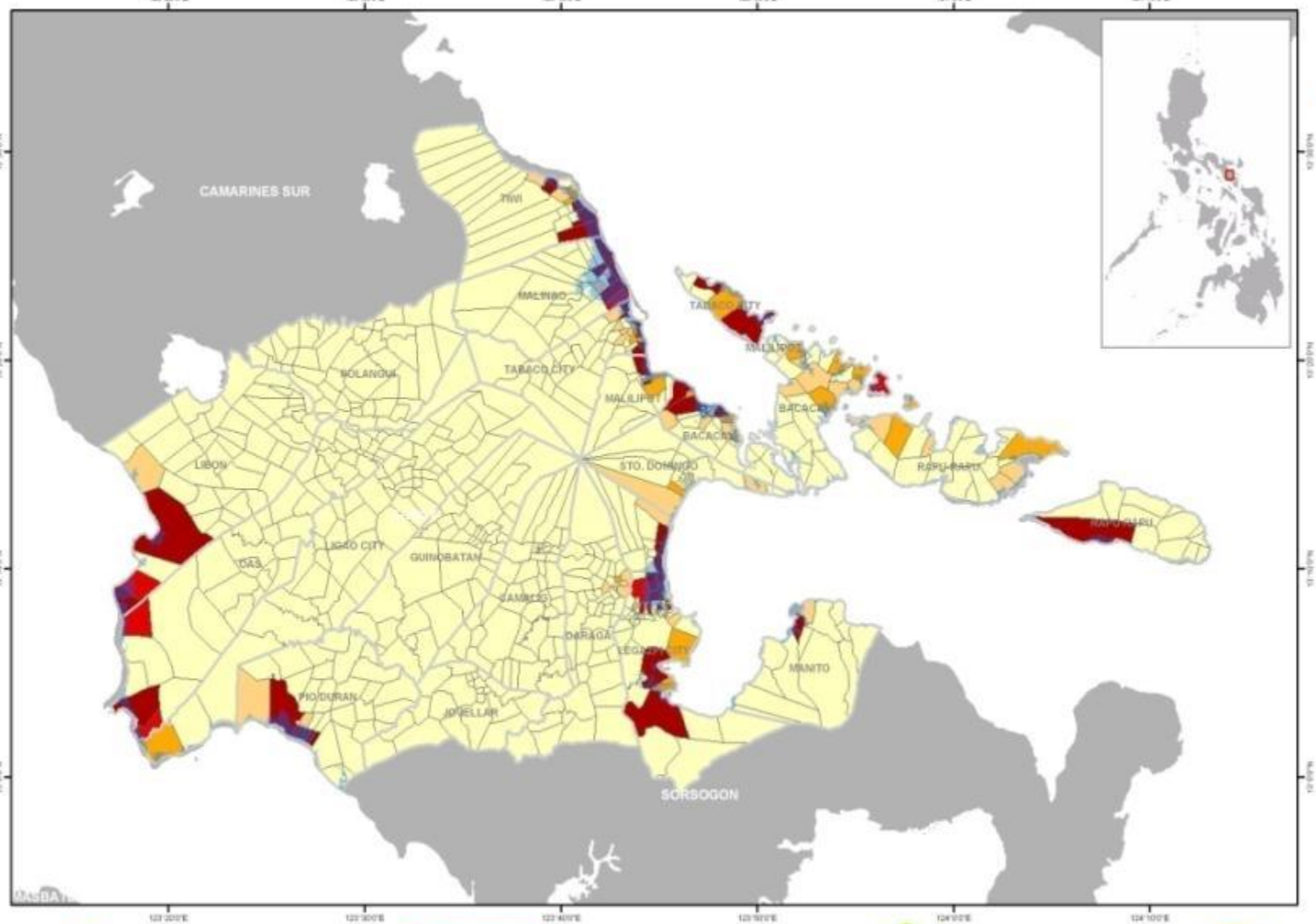
Km
0 1 2 4 8

Map Scale for A3 Prints:	**Typhoon Data:**
1 : 350000	JTWC Best Track Data (1945-2000)
Poverty Data:	**Map Production:**
NSCB	Manila Observatory
Population Data:	**Map Produced by:**
NSO	Engr. Joel de Mesa
GIS Data:	Armelle Reca Remedio
MO, NAMRIA, NSCB, NSO	**Projection:**
	GCS Luzon Datum

christian aid

Oxfam

Coastal Flooding Risk Map of Albay Province, Philippines



LEGEND

- Barangay Boundary
- Municipal Boundary
- Low Lying Coastal Areas (0-10m)

Risk

- Very Low
- Low
- Moderate
- High
- Very High

MAP INFORMATION

This map illustrates the risk posed by coastal flooding in Albay province.

High risk areas are low lying barangays near the coast, as well as, being densely populated with high numbers of poor people.

Coastal flooding is the inundation of land areas along the oceanic coast by sea waters over and above normal tidal action. (MetEd)

Risk (R) is the product of the Hazard (H), Exposure (E) and Vulnerability (V) or R=HEV where:

H = Coastal Flood Hazard Score
E = Population Density
V = Number of Poor People

The Coastal Flood Hazard Score (H) was computed for each barangay of the study area using the formula:

$$H = \Sigma (e \times d \times A)$$

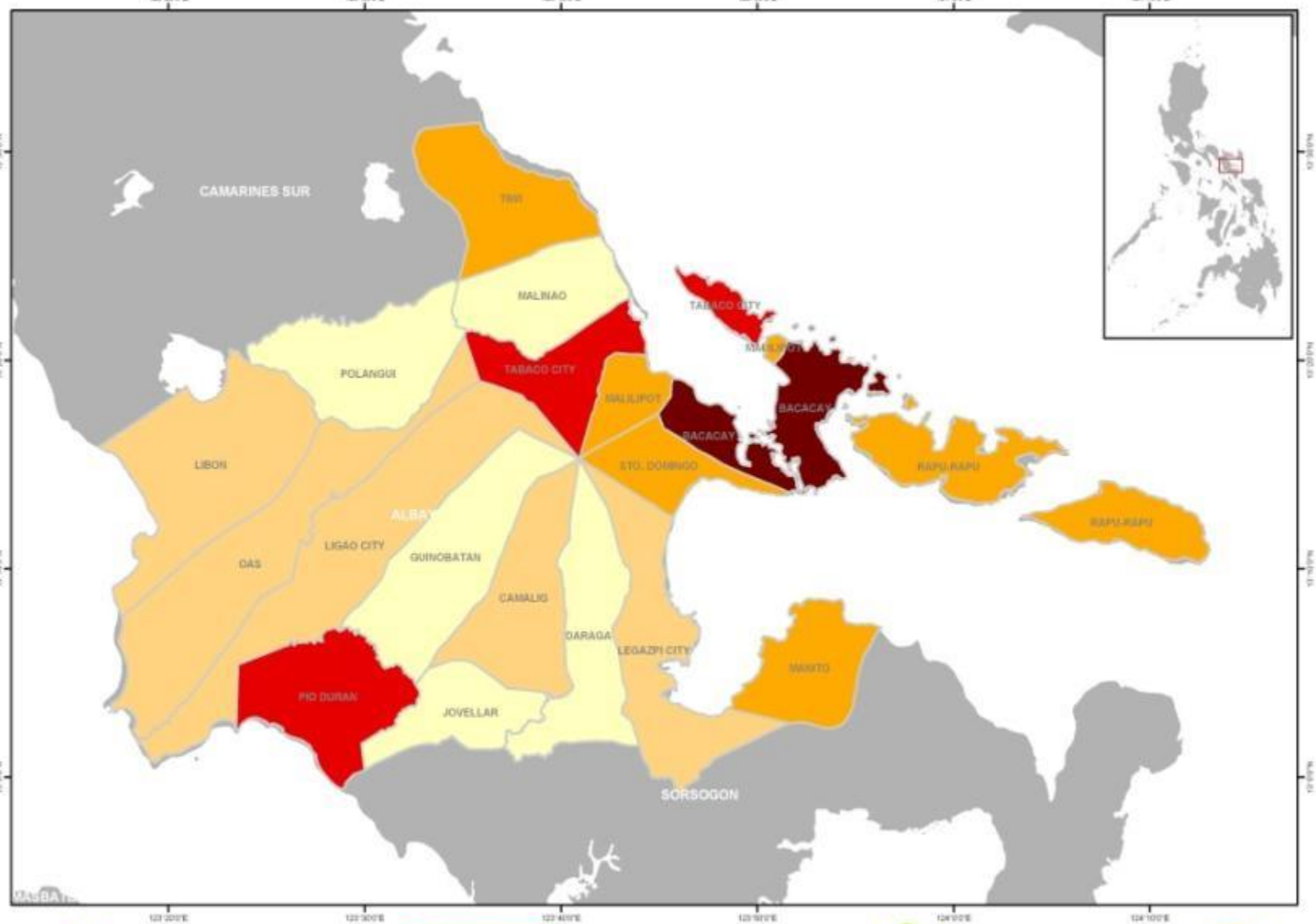
Where e and d are the weights based on elevation and distance from the coast line, and A is the area of the coastal flood hazard.

Population density is the number of persons per square kilometers. Due to lack of available data at the barangay scale, the number of poor people was estimated by multiplying the municipal poverty incidence by the barangay population.

Km
0 1 2 4 6

Map Scale for A3 Prints:	**GIS Data:**
1 : 350000	MO, NAMRIA, NSCB, NSO
Elevation Data:	**Map Production:**
SRTM 90m DEM	Manila Observatory
Poverty Data:	**Map Produced by:**
NSCB	Engr. Joel de Mesa, Armelle Reca Remedio
Population Data:	**Projection:**
NSO	GCS Luzon Datum

Temperature Increase Risk Map of Albay Province, Philippines



LEGEND

- Municipal Boundary

Risk

- Very Low
- Low
- Moderate
- High
- Very High

MAP INFORMATION

This map illustrates the risk posed by temperature increase in Albay province.

High risk areas are municipalities that experience a rise in temperature, as well as, being densely populated with high numbers of poor people .

An increase in temperature can cause sea level rise, increased intensity of extreme weather events, and a significant change to the amount and pattern of precipitation.

Risk (R) is the product of the Hazard (H), Exposure (E) and Vulnerability (V) or R=HEV where:

H = Temperature Increase Hazard Score
E = Population Density
V = Poverty Incidence

The Temperature Increase Hazard Score (H) was computed for each municipality of the study area using the formula:

$$H = \Sigma (a2 \times A) / M$$

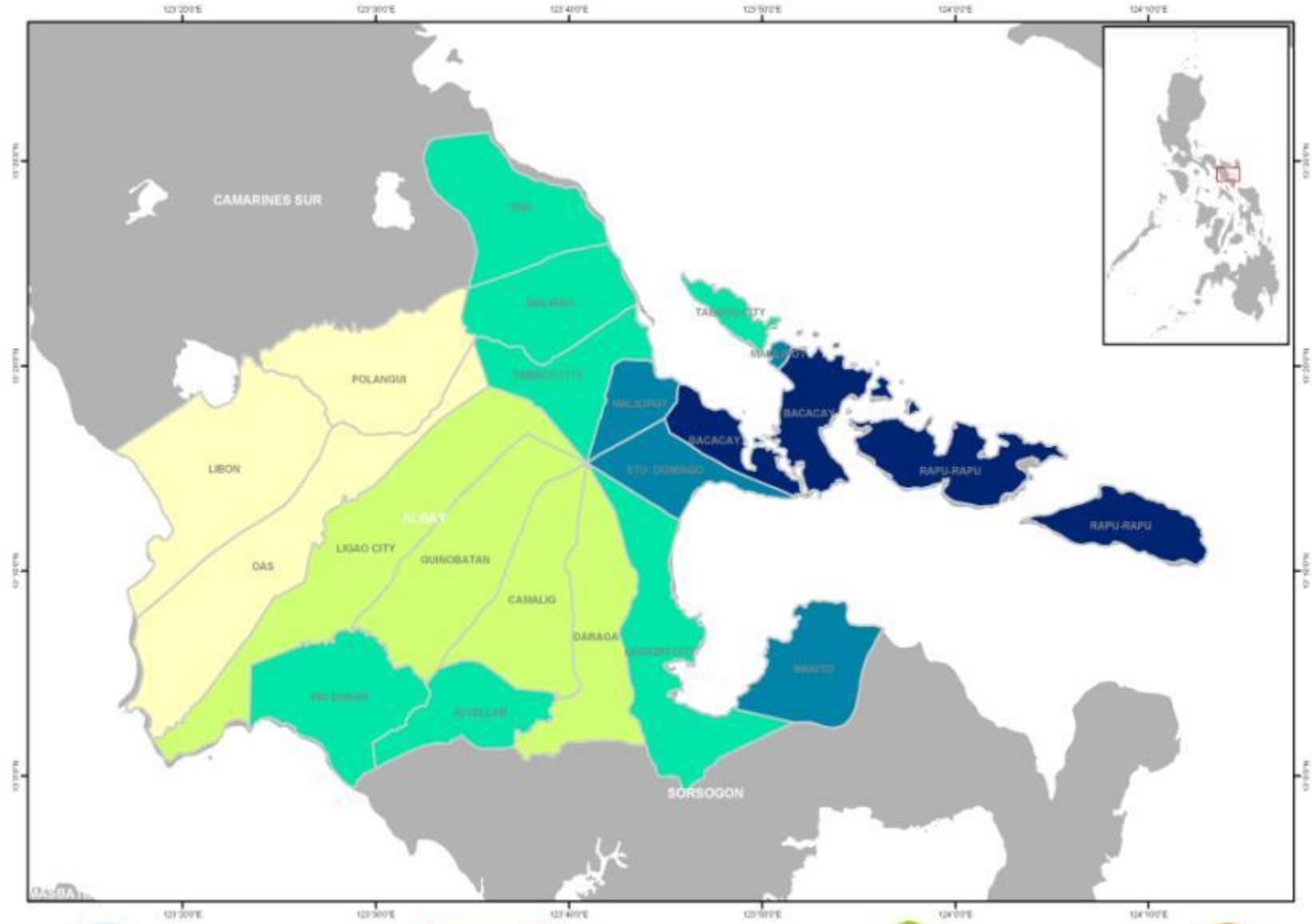
Where w is the weight based on annual average increase in temperature, A is the area of the temperature increase hazard, and M is the area of the municipality.

Population density is the number of persons per square kilometers. Poverty incidence is the proportion of the poor population to the total population based on the per capita poverty threshold.

Km
0 1 2 4 8

Map Scale for A3 Prints:	**Temperature Data:**
1 : 350000	The Abdus Salam ICTP RegCM3, NNRP2,
Poverty Data:	GISST, OISST, USGS,
NSCB	PAGASA
Population Data:	**Map Production:**
NSO	Manila Observatory
GIS Data:	**Map Produced by:**
MO, NAMRIA, NSCB, NSO	Engr. Joel de Mesa Armelle Reca Remedio
	Projection:
	GCS Luzon Datum

Rainfall Increase Hazard Map (Dry Season) of Albay Province, Philippines



LEGEND

- Municipal Boundary

Hazard

- Very Low
- Low
- Moderate
- High
- Very High

MAP INFORMATION

This map illustrates the hazard posed by rainfall increase in Albay province.

High hazard areas are municipalities that experience rainfall increase in the months of March, April and May.

Rainfall is the primary trigger of lahar flow, landslides, and flood.

Risk (R) is the product of the Hazard (H), Exposure (E) and Vulnerability (V) or R=HEV where:

H = Rainfall Increase Hazard Score
E = Population Density
V = Poverty Incidence

The Rainfall Increase Hazard Score (H) was computed for each municipality of the study area using the formula:

$$H = \Sigma (w_i \times A_i) / M$$

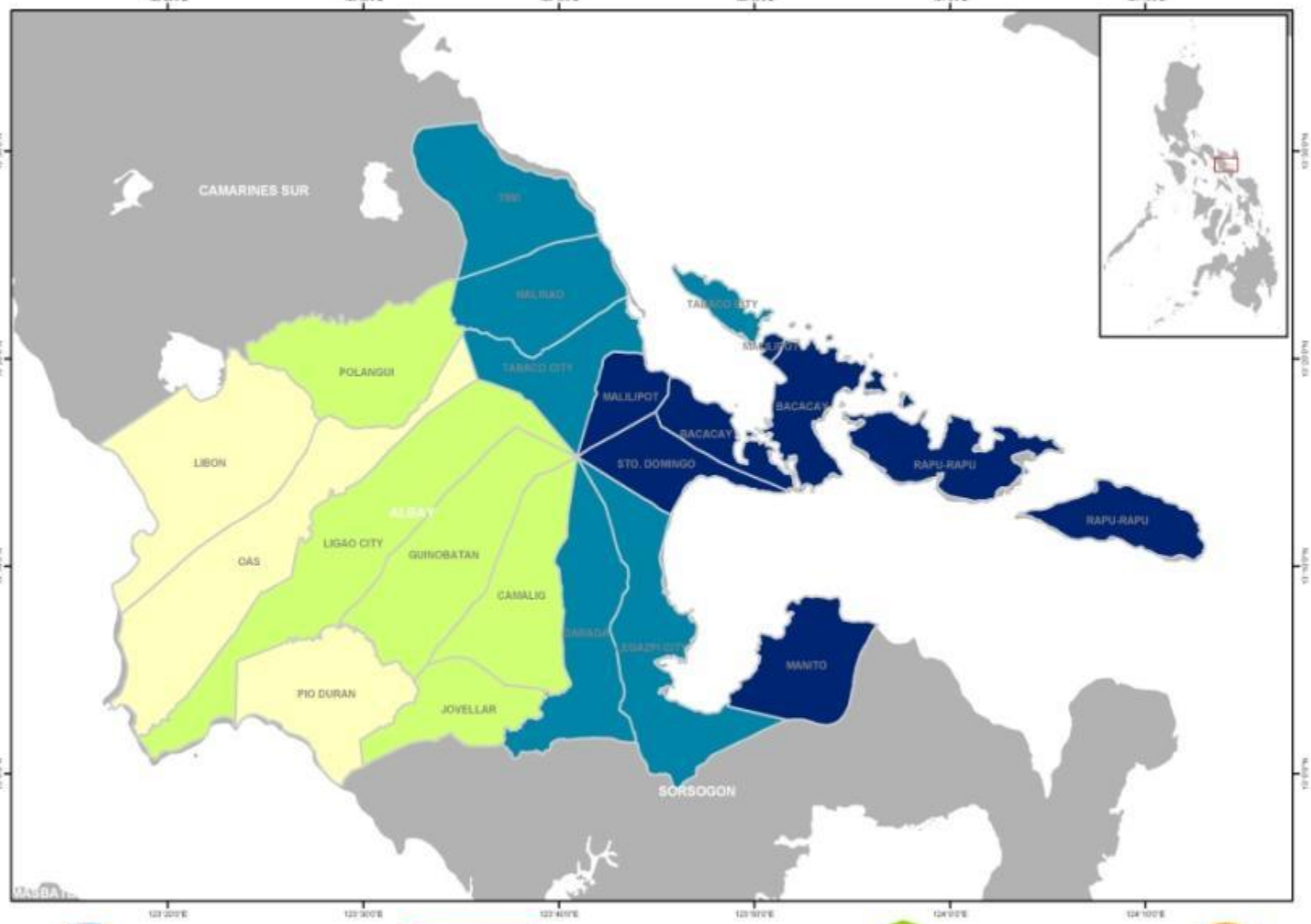
Where w_i is the weight based on the 3-monthly average increase in accumulated rainfall, A is the area of the rainfall increase hazard, and M is the area of the municipality.

Population density is the number of persons per square kilometers. Poverty incidence is the proportion of the poor population to the total population based on the per capita poverty threshold.

Km
0 1 2 4 8

Map Scale for A3 Prints:	**Rainfall Data:**
1 : 350000	The Abdus Salam ICTP RegCM3, NWRP2
Poverty Data:	GISST, OISST, USGS,
NSCB	PAGASA
Population Data:	**Map Production:**
NSO	Manila Observatory
GIS Data:	**Map Produced by:**
MO, NAMRIA, NSCB, NSO	Engr. Joel de Mesa Armelle Reca Remedio
	Projection:
	GCS Luzon Datum

Rainfall Increase Hazard Map (Wet Season) of Albay Province, Philippines



LEGEND

- Municipal Boundary

Hazard

- Very Low
- Low
- Moderate
- High
- Very High

MAP INFORMATION

This map illustrates the hazard posed by rainfall increase in Albay province.

High hazard areas are municipalities that experience rainfall increase in the months of October, November and December.

Rainfall is the primary trigger of lahar flow, landslides, and flood.

Risk (R) is the product of the Hazard (H), Exposure (E) and Vulnerability (V) or R=HEV where:

H = Rainfall Increase Hazard Score
E = Population Density
V = Poverty Incidence

The Rainfall Increase Hazard Score (H) was computed for each municipality of the study area using the formula:

$$H = \Sigma (w_i \times A_i) / M$$

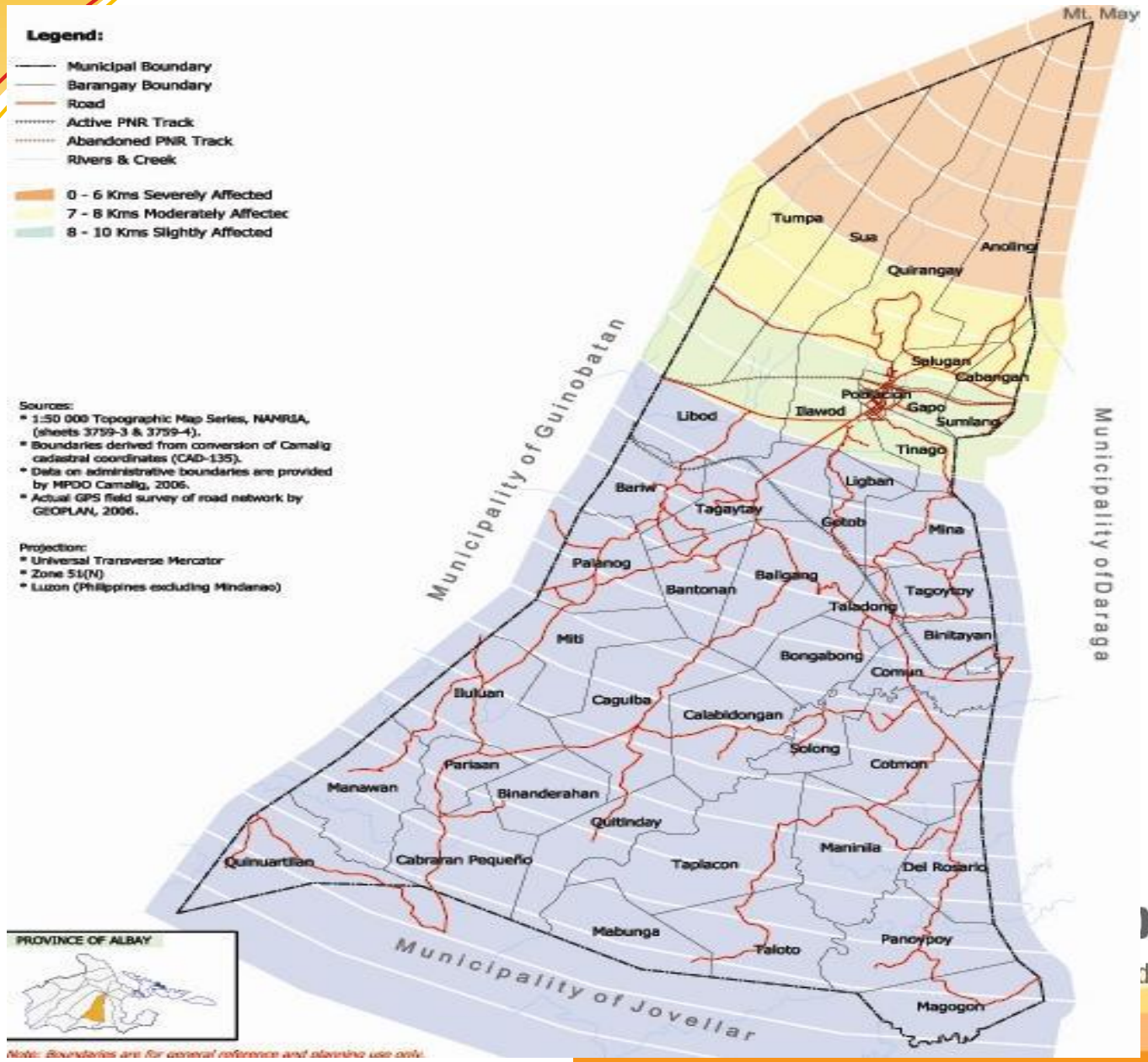
Where w is the weight based on the 3-monthly average increase in accumulated rainfall, A is the area of the rainfall increase hazard, and M is the area of the municipality.

Population density is the number of persons per square kilometers. Poverty incidence is the proportion of the poor population to the total population based on the per capita poverty threshold.

Km
0 1 2 4 6

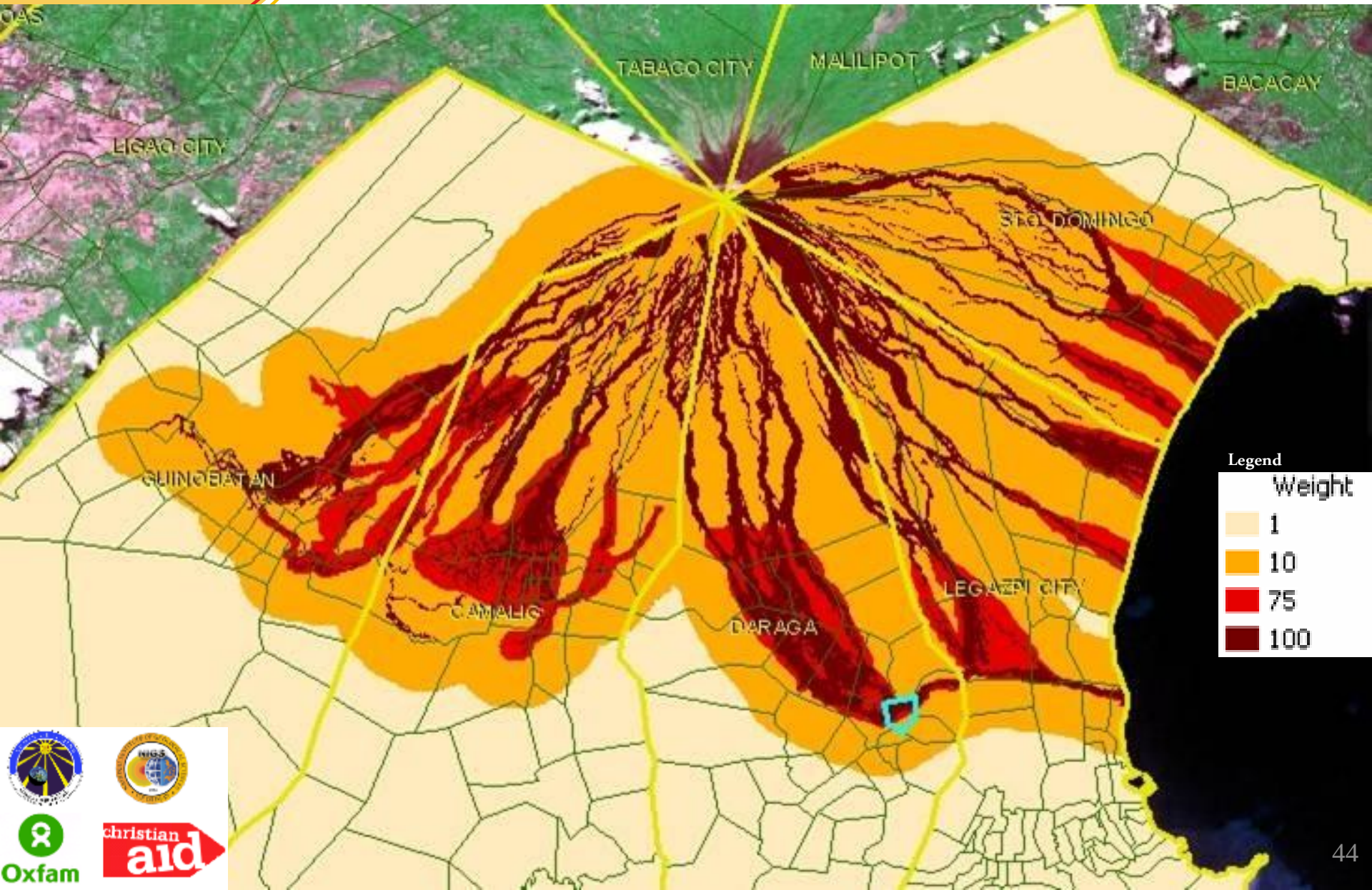
Map Scale for A3 Prints:	**Rainfall Data:**
1 : 350000	The Abdus Salam ICTP RegCM3, NNRP2,
Poverty Data:	GISST, OISST, USGS,
NSCB	PAGASA
Population Data:	**Map Production:**
NSO	Manila Observatory
GIS Data:	**Map Produced by:**
MO, NAMRIA, NSCB, NSO	Engr. Joel de Mesa Armelle Reca Remedio
	Projection:
	GCS Luzon Datum

Hazard Mapping



Lahar Hazard Map

Lahar Hazard Map

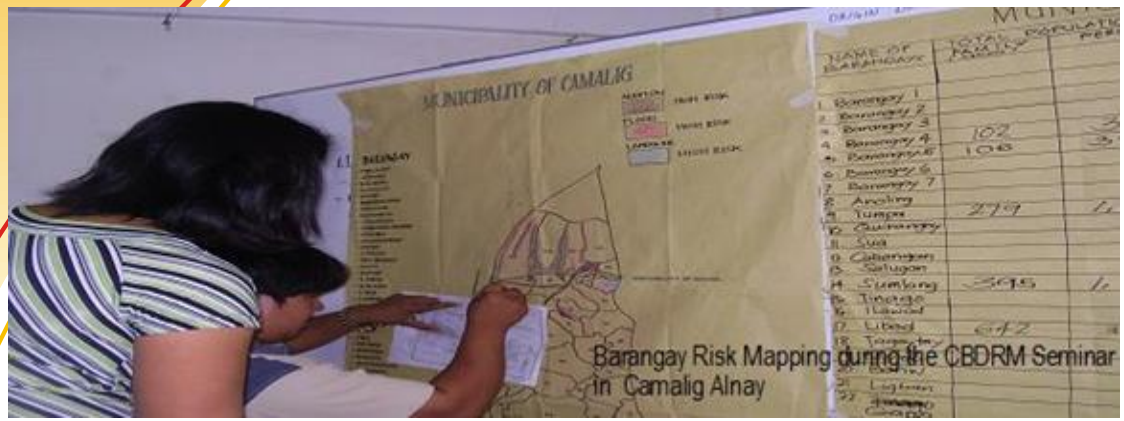


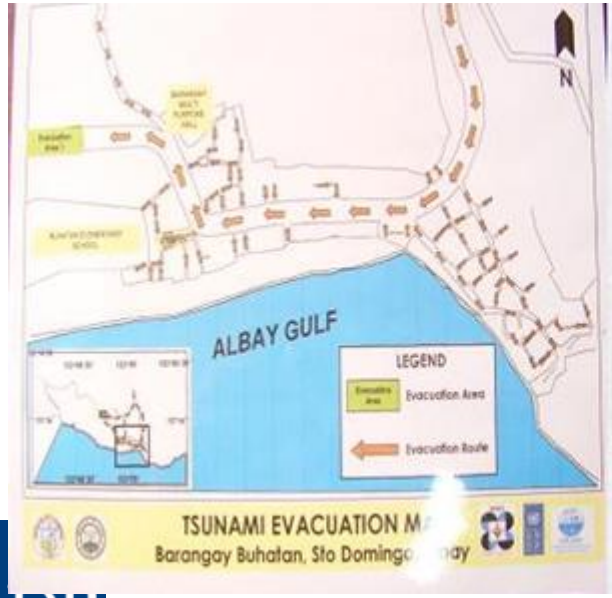
HAZARD SCORE = $\Sigma(w^2 \times \text{Area})$

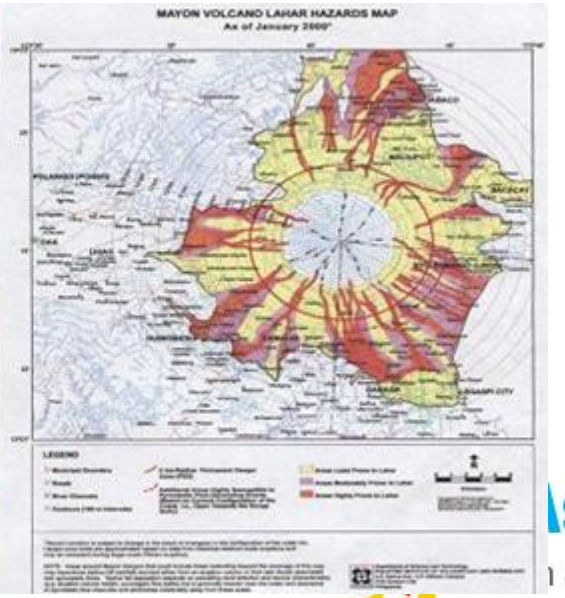
on Sustainable Development and Climate Change

LAHAR HAZARD SCORE = 100^2 (A1) + 75^2 (A2) + 10^2 (A3)

Community-based Risk Mapping







Risk Reduction: Land Use Plan and Zoning

- **Comprehensive Land Use Plan**
  - First line of defense against disaster: science-based adaptation
  - SIMCLIM (localized climate scenario) software customized for Albay
  - Training of 18 municipalities in preparation of CLUPs on integration climate risks at municipal level
  - *VA / SEI analysis now complete (vulnerability assessment) / socioeconomic impacts*
  - Integration of climate and disaster risks into zoning ordinance remains a continuing task
  - Source of Funds: P16m from **UNDF MDGCF**
- **Soil Analysis**
  - BSWM-led soil testing of 15 LGUs with 3 already done (Polangui, Ligao and Tiwi)
  - Source of Funds:P5m from **Dept of Agriculture MOOE** downloaded to Provincial Government

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Albay Prov'l Devt Investment Plan 2011-16

NAME OF PROJECT/PROGRAM	TOTAL PROJECT COST
DRR/CCA Receptive Infrastructure PPAs	
1. GUICADALE ROAD PROJECTS	2,893,657,402.71
2. SOUTHERN LUZON INTERNATIONAL AIRPORT	3,400,000,000.00
3. ALBAY WEST COAST ROAD	663,520,000.00
4. BICOL ALTERNATIVE HIGHWAY - DARAGA - OAS SECTION	250,000,000.00
5. OAS -CAGMANABA ROAD	250,000,000.00
6. COMPREHENSIVE DISASTER PREVENTION AROUND MAYON VOLCANO	39,257,300,000.00
7. SAFE SCHOOLS	592,195,000.00
8. SAFE HOSPITALS	100,000,000.00
9. ALBAY TRES or Albay section of Bicol River Basin Development Plan	1,499,011,800.00
10. ALBAY DOS or Donsol River Watershed Plan	427,000,000.00
11. CRaBS++	1,253,020,000.00
SUB-TOTAL	50,585,704,202.71
Non-infra DRR/CCA Receptive PPAs	17,746,782,237.17
Non-infra/non DRR/CCA receptive PPAs	12,305,513,560.12
GRAND TOTAL	80,638,000,000.00

Resources for Investment Plan: Albay Sustainable Handbook for Tiwi / Malinao

- Albay Sustainable Handbook is a data-based, science-based and community-based CLUP-driven approach to development planning
  - Limited to towns of Tiwi and Malinao
  - To be replicated to:
    1. Oas Graben (3rd District)
    2. Guinobatan-Sto. Domingo (lahar zone), and
    3. CRAB Islands (Cagraray, Rapu-Rapu, Batan, San Miguel)
- Source of Fund: CSR of Chevron – P5m
  - Future commitments- Shell Foundation for Oas Graben

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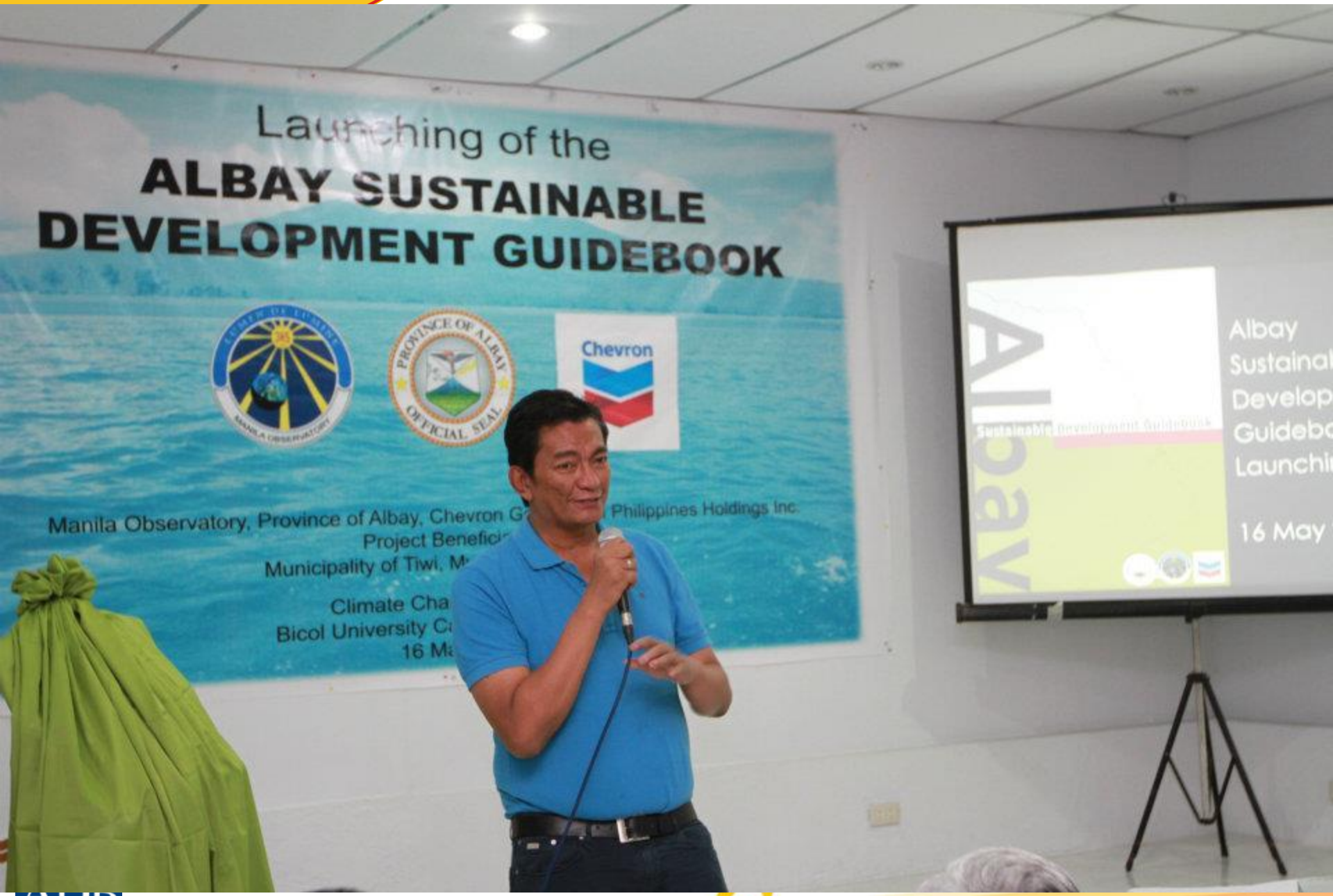
on Sustainable Development and Climate Change


Launching of the
ALBAY SUSTAINABLE
DEVELOPMENT GUIDEBOOK
Chevron
Manila Observatory, Province of Albay, Chevron G
Philippines Holdings Inc.
Project Benefici
Municipality of Tiwi, M
Climate Cha
Bicol University C
16 M
Albay
Sustainable Development Guidebook
Albay
Sustainal
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Guideb
Launchi
16 May

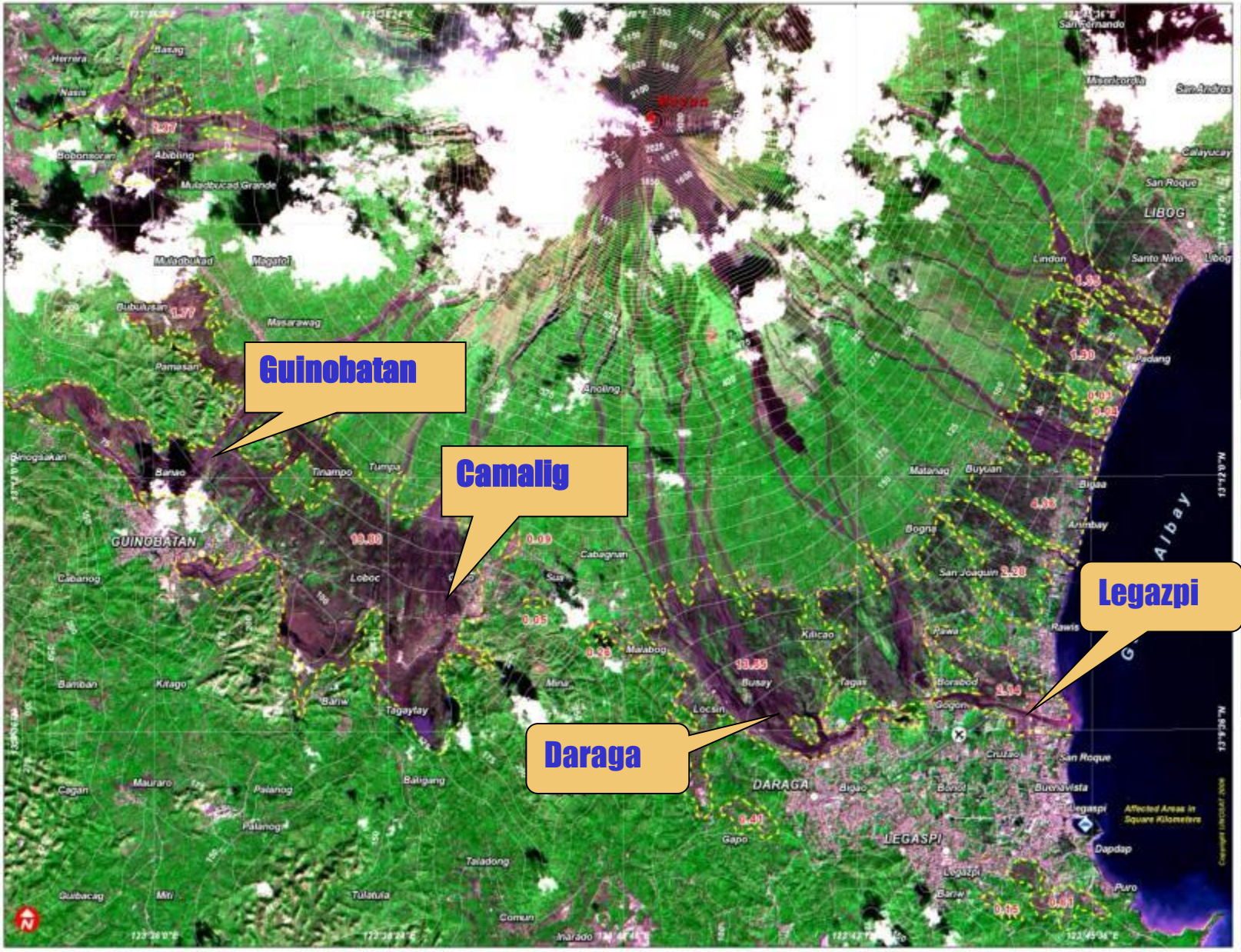
Resources for Risk Reduction: Geostrategic Intervention

- **Geostrategic Intervention**: Guicadale Economic Platform
  - Both the flagship economic project and main DRR strategy of Albay
  - Redirection of centers of business and residential activities towards safe area
  - Components:
    - **Relocation of 10,076 households** in high-risk areas
      - Cost- P2bn for 8 resettlement sites
      - Source of Funding- NHA, province, INGOs
    - **New international airport** (ongoing)
      - Cost- P4.9bn
      - Source of Funding- DOTC national government
    - **Road networks**
      - Cost- P1.3bn
      - Source of Funding- Organic annual budget of DPWH, national transfers, JICA, multi-year from 20% economic development fund of the province
    - **New government center**
      - Cost- P176m
      - Source of Funding- province to acquire via long term loan from Philippine Veterans Bank

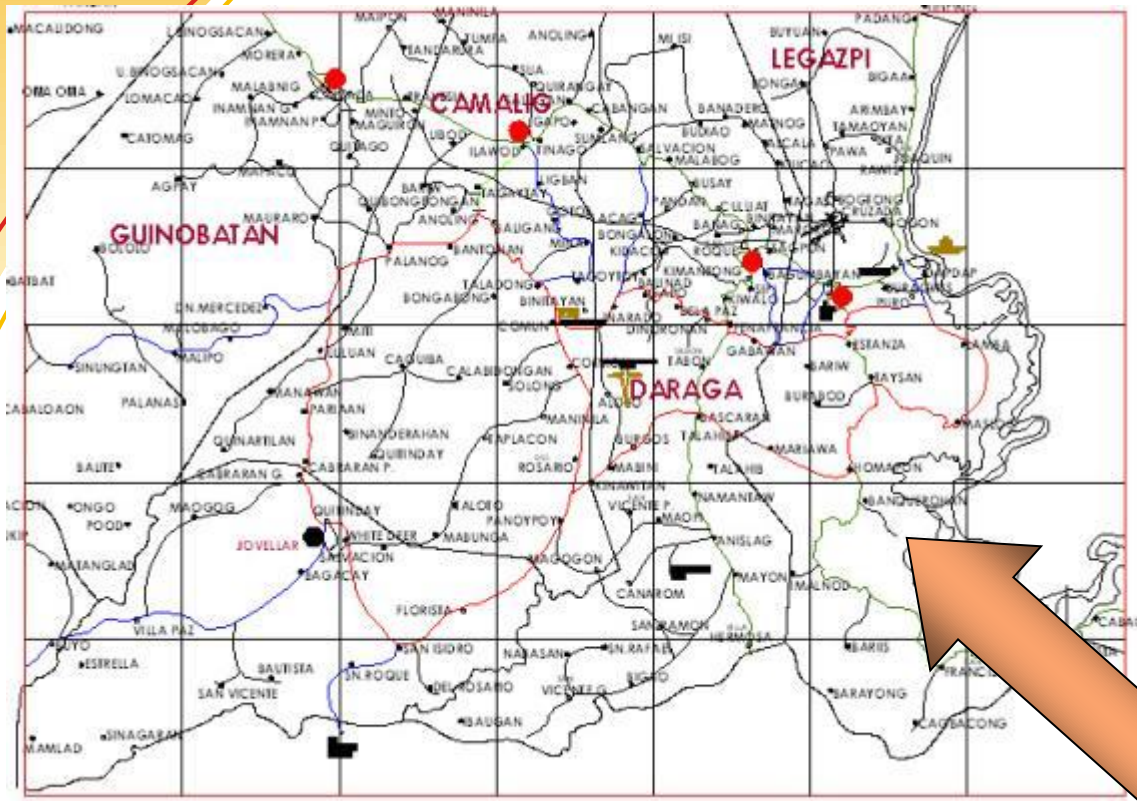
Overview of Flooding & Mudslide Damage Surrounding Mt. Mayon Volcano, Albay Province, Philippines

Satellite Identified Damage from Typhoon Durian Using SPOT-5 Imagery Recorded on 12 December 2006

18 December 2006
Version 1.0
Glide No: TC-2006-000175-PHL



GUICADALE ECONOMIC PLATFORM



DRR w/o DISASTER

=

ECONOMIC EXPANSION

DRR MEASURES

=

INVESTMENTS

Resources for Risk Reduction: Relocation

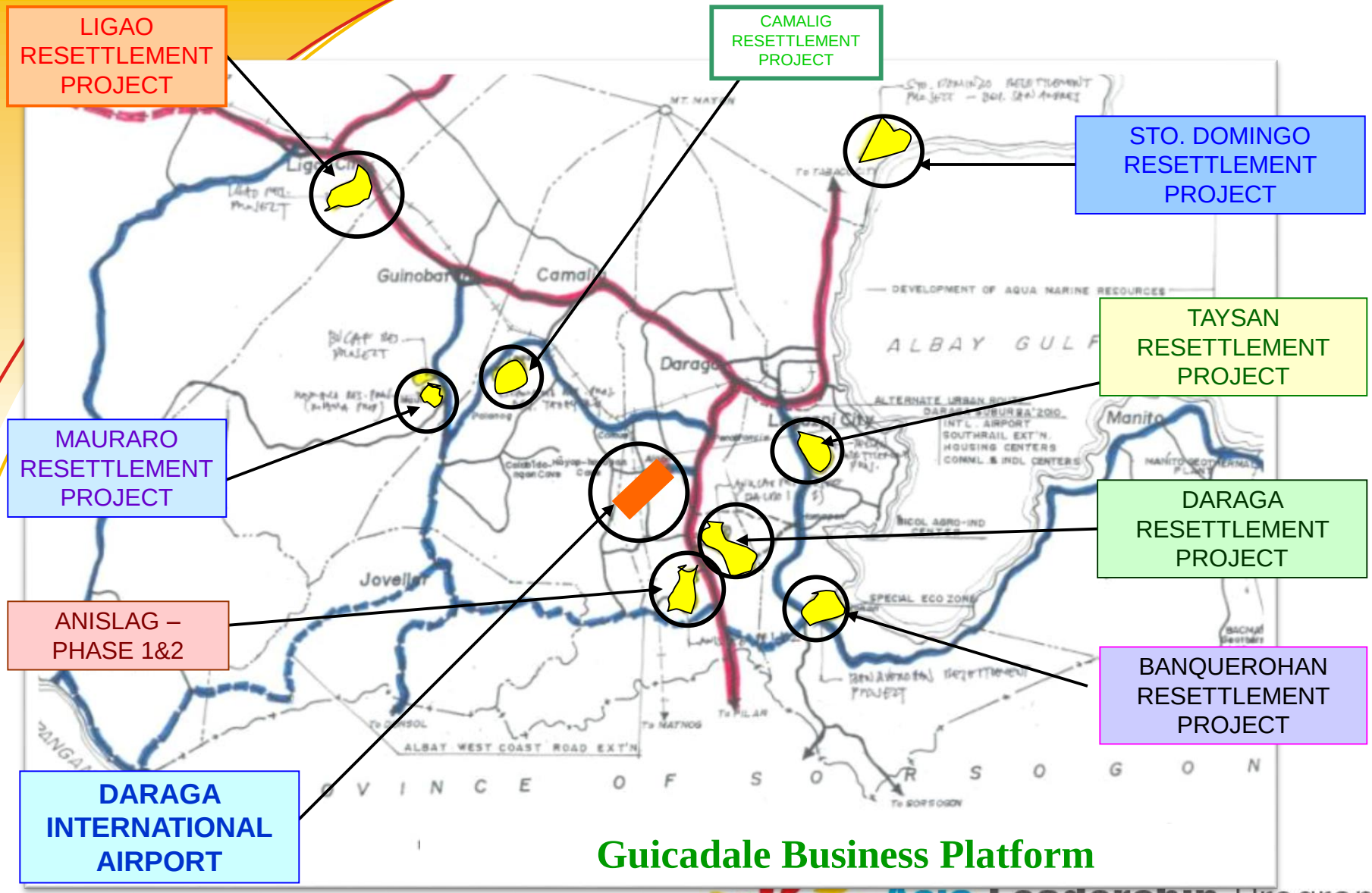
- **Relocation**
  - Program being undertaken under Albay MDG Office
  - 10,076 households in high risks areas already provided with developed lots in safer locations (around the new intl airport)
  - Lots are already sufficient
  - Shelter gap of 5,454
- Funded by NHA, DSWD, INGOs/NGOs
  - Provincial Government provided the sites

Resources for Risk Reduction: Relocation Sites

- Taysan (Legazpi City)
- Banquerohan (Legazpi City)
- Sta. Monica (Legazpi City)
- Anislag Phases 1, 2,3 (Daraga)
- Baldo 1 (Daraga)
- Baldo 2 (Daraga)
- Amore (Daraga)
- Bascaran (Daraga)
- Penafrancia (Daraga)
- Pandan (Daraga)
- Cullat (Daraga)
- Balinad (Daraga)
- Banadero (Daraga)
- Tagaytay (Camalig)
- Baligang (Camalig)
- St. Francis of Assisi (Camalig)
- Mauraro (Guinobatan)
- Quitago (Guinobatan)
- Minto (Guinobatan)
- Tuburan (Ligao)
- Lanigay (Polangui)
- San Andres phases 1 & 2 (Sto. Domingo)





Guicadale Business Platform

Risk Reduction: Engineering Interventions

- **Engineering Interventions**
  - **Flood Control**
    - **Phase 1 of Legazpi Flood Control already approved for DPWH funding in 2012 GAA: P575m out of total P2.1bn**
  - **Bicol River Basin and Watershed Project**
    - Flood control for flood plains
    - Watershed protection and reforestation
    - Irrigation rehabilitation
    - Multi-year P3.4bn
  - **Source of Funds**
    - World Bank country assistance with NG counterpart

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Bicol River Basin Flood Control

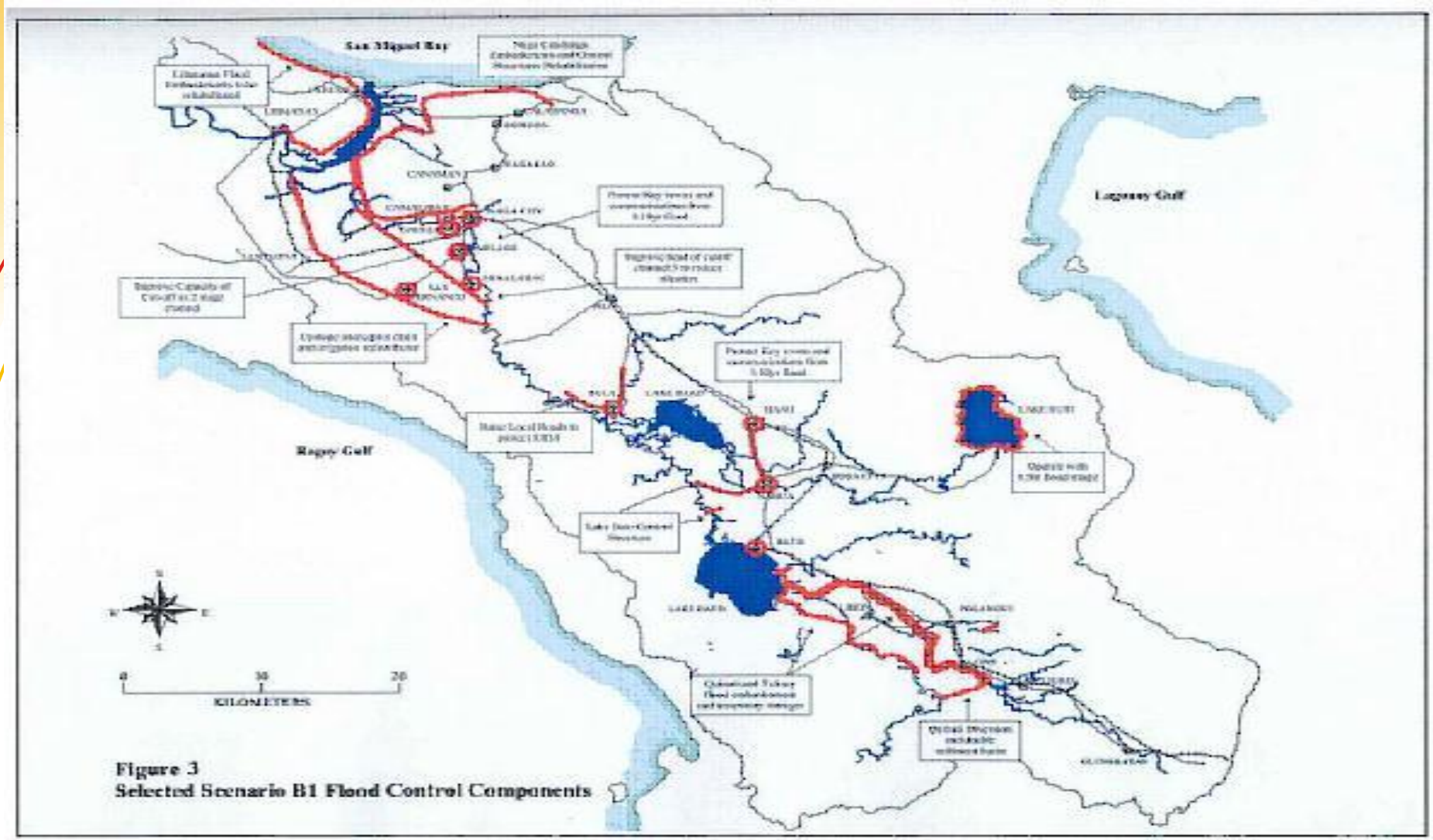
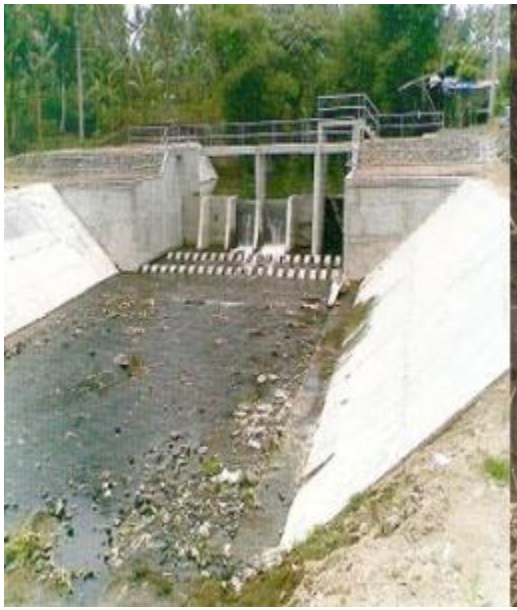


Figure 3
Selected Scenario B1 Flood Control Components

Engineering Interventions: Biggest Gap



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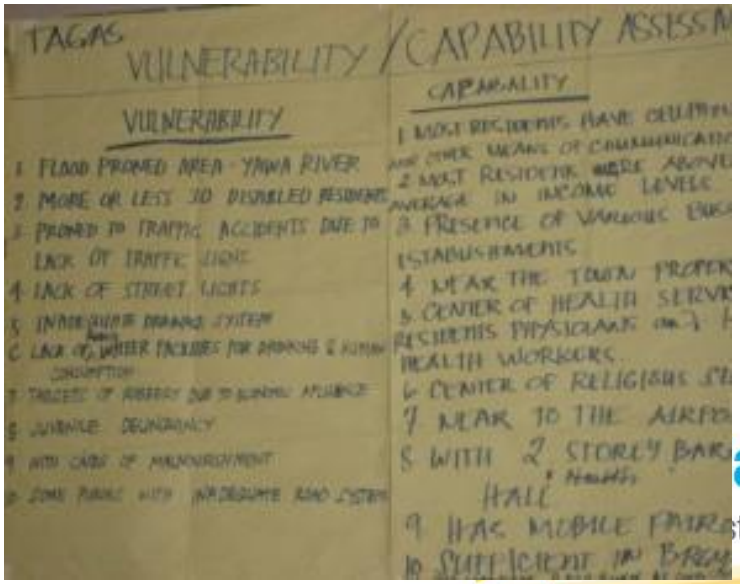
on Sustainable Development and Climate Change

Resources for Social Preparations

- **Continuous Training and Education**
  - Components
    - Household preparedness
    - Community preparedness (first responder capacity)
    - LGU preparedness (first integrator)
    - Skills development for government and volunteers
    - Warning System Communication Protocol and Evacuation Procedures
    - Evacuation and Community Kitchen Management
    - Mountain Survival and compass reading
    - Critical Incidence Stress Debriefing
    - Community Risk Mapping and Contingency Planning
    - Education-On-Air with local broadcast media
    - Conduct of drills and exercises in schools, hospitals, hotels, malls and communities to pre-test the hazard specific contingency plan on volcanic eruption, earthquake typhoon and fire
    - Continuous and Periodic Education and Training
  - Source of Funds
    - Regular annual provincial budget

Community Training and Seminar



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stainable Development and Climate Change

Community Drills

Training of Emergency Paramedics






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Training of Rescue Team

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on Sustainable Development and Climate Change

STARTING THEM EARLY

CHILDREN DRR THROUGH GAMES

CHILDREN DRR THROUGH MAGIC

Resources for Preparedness

- **Close coordination with warning agencies**
  - **Pagasa is sole authority**
  - **Establishment of Regional Weather Bureau in Legazpi**
    - **Upper air balloon to improve detection**
  - **JICA Reming assistance: Doppler radar in Virac**
- **Community-based warning system**
  - Rainfall monitoring at village level
  - Continuous training
  - Source of Funds: Provincial Government budget
- **Warning communications protocol**
  - **Infoboard**
    - Assigned 15,750 SIM cards to village officials
    - Source of Funds: CSR of Smart

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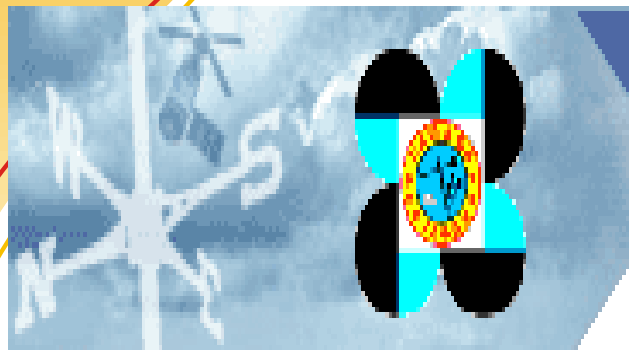
Community-Based Early Warning



Warning Agencies

APSEMO

Communities LGUS

DOST

PHIVOLCS

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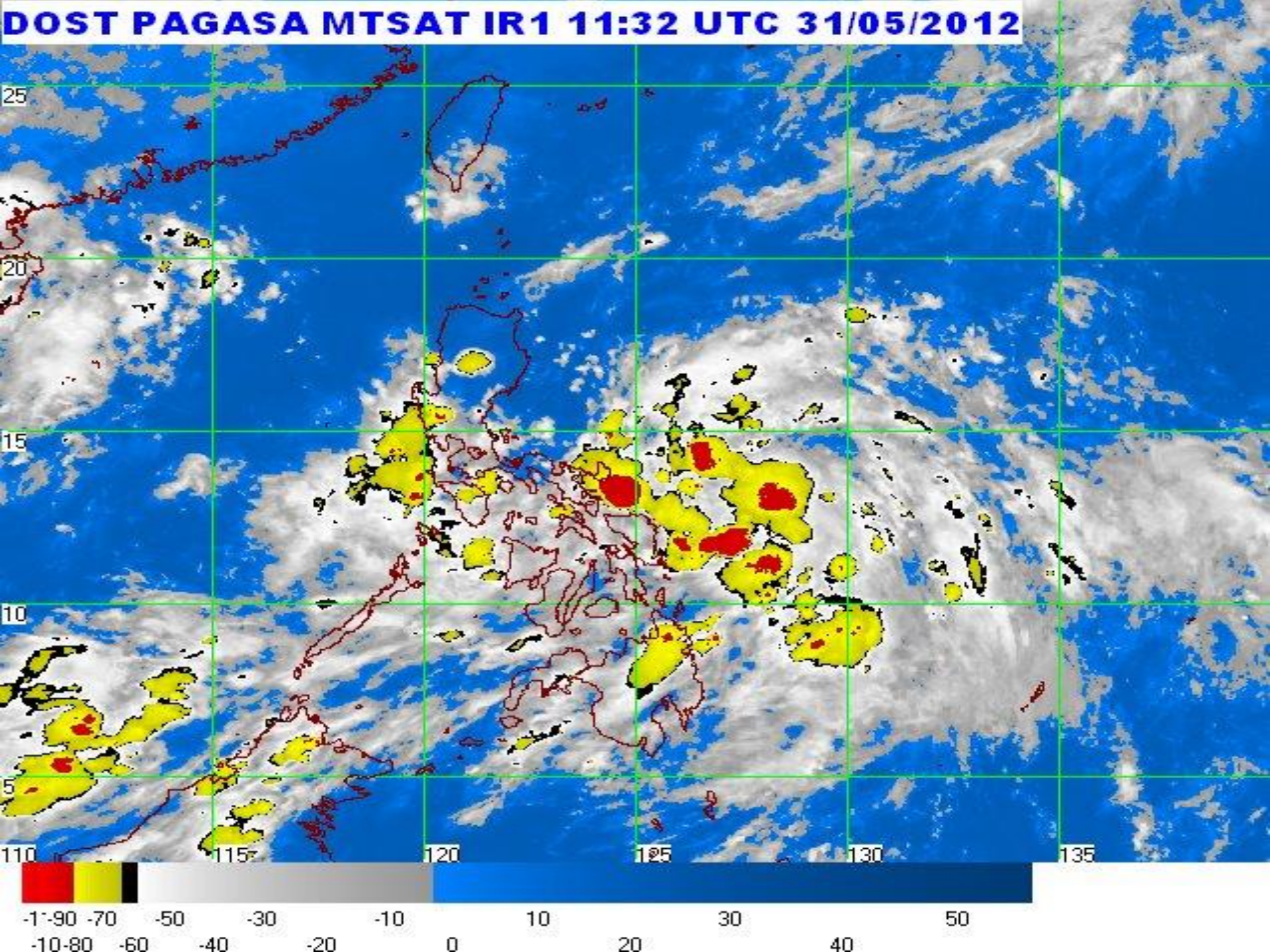
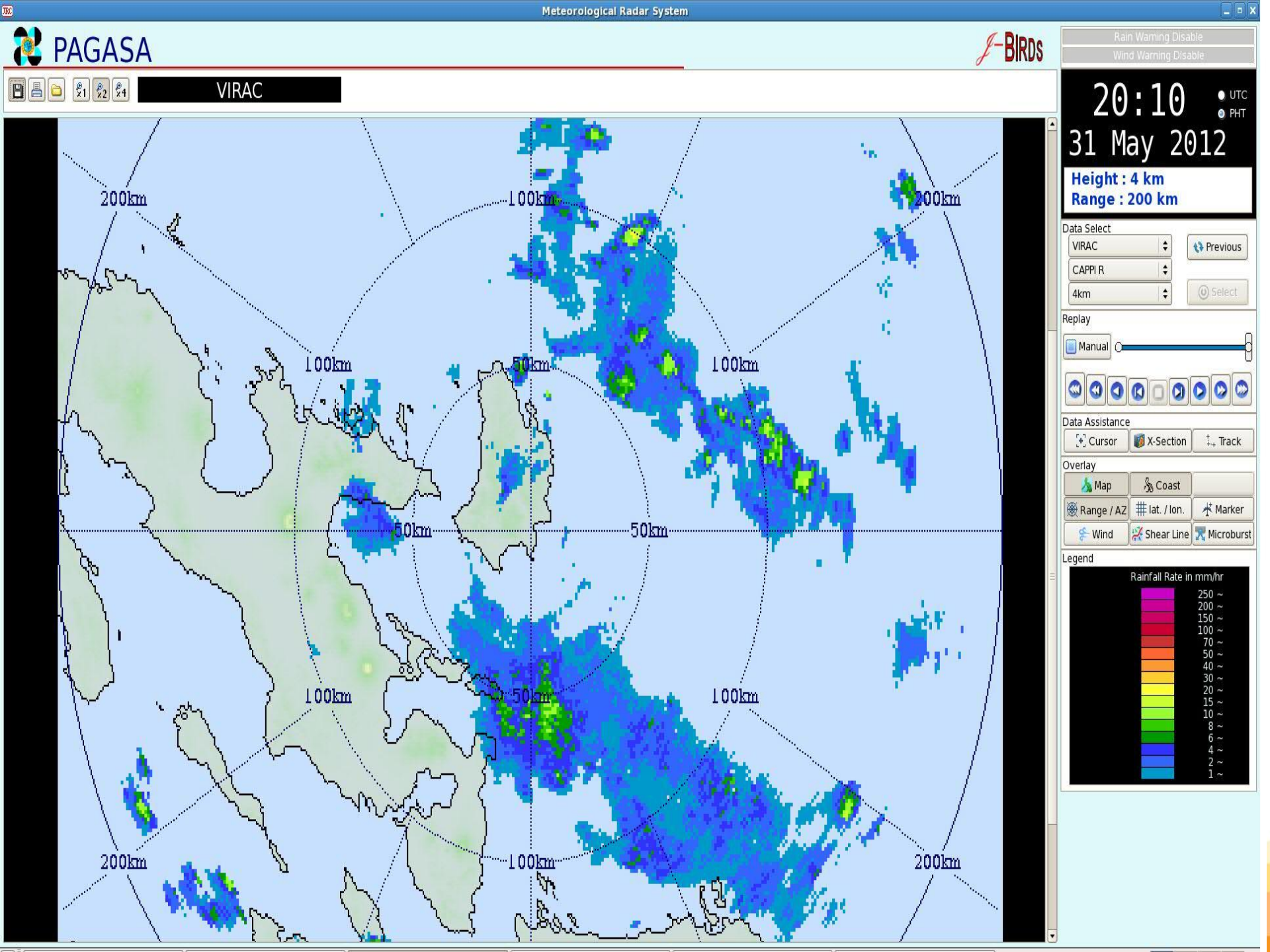
on Sustainable Development and Climate Change

gram
e Change


DOST PAGASA MTSAT IR1 11:32 UTC 31/05/2012
25
20
15
10
5
110
115
120
125
130
135
-90 -70 -50 -30 -10 10 30 50
-80 -60 -40 -20 0 20 40


Meteorological Radar System
PAGASA
J-BIRDS
VIRAC
Rain Warning Disable
Wind Warning Disable
20:10
UTC
PHT
31 May 2012
Height : 4 km
Range : 200 km
Data Select
VIRAC
CAPPI R
4km
Previous
Select
Replay
Manual
Data Assistance
Cursor
X-Section
Track
Overlay
Map
Coast
Range / AZ
lat. / lon.
Marker
Wind
Shear Line
Microburst
Legend
Rainfall Rate in mm/hr
250 ~
200 ~
150 ~
100 ~
70 ~
50 ~
40 ~
30 ~
20 ~
15 ~
10 ~
8 ~
6 ~
4 ~
2 ~
1 ~
200km
100km
50km

Community-based Warning Communications

Community Disaster Preparedness and Response Activities (Organizing, Education and Trainings)

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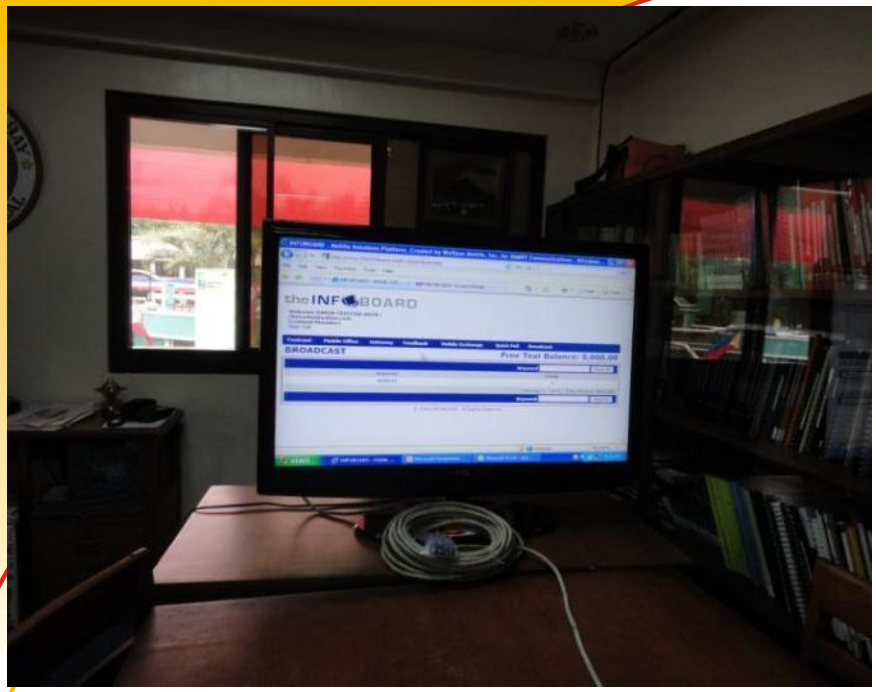
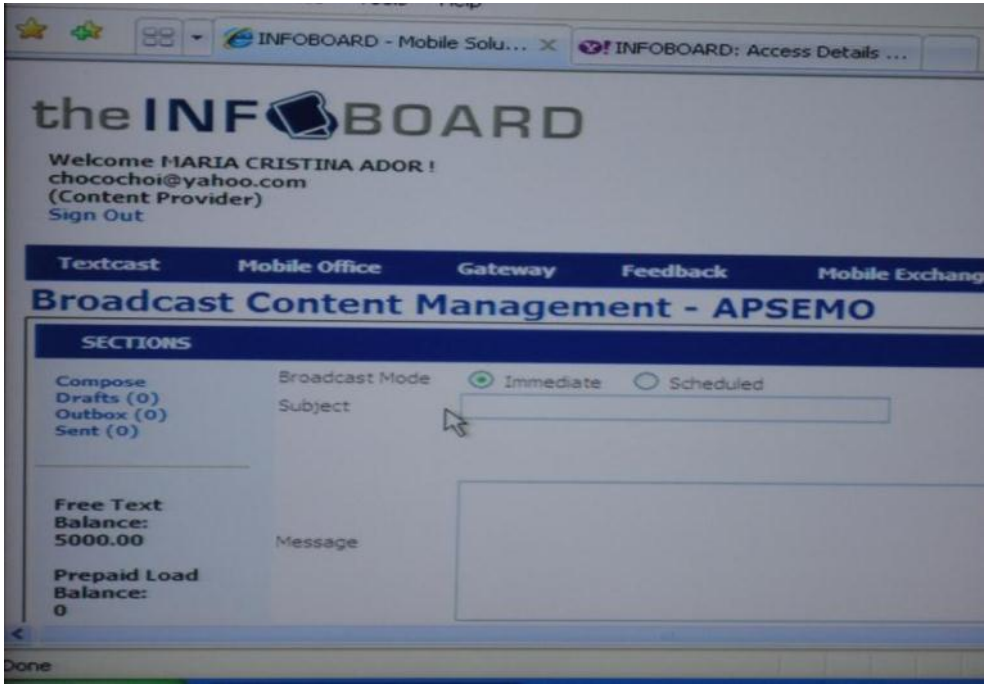
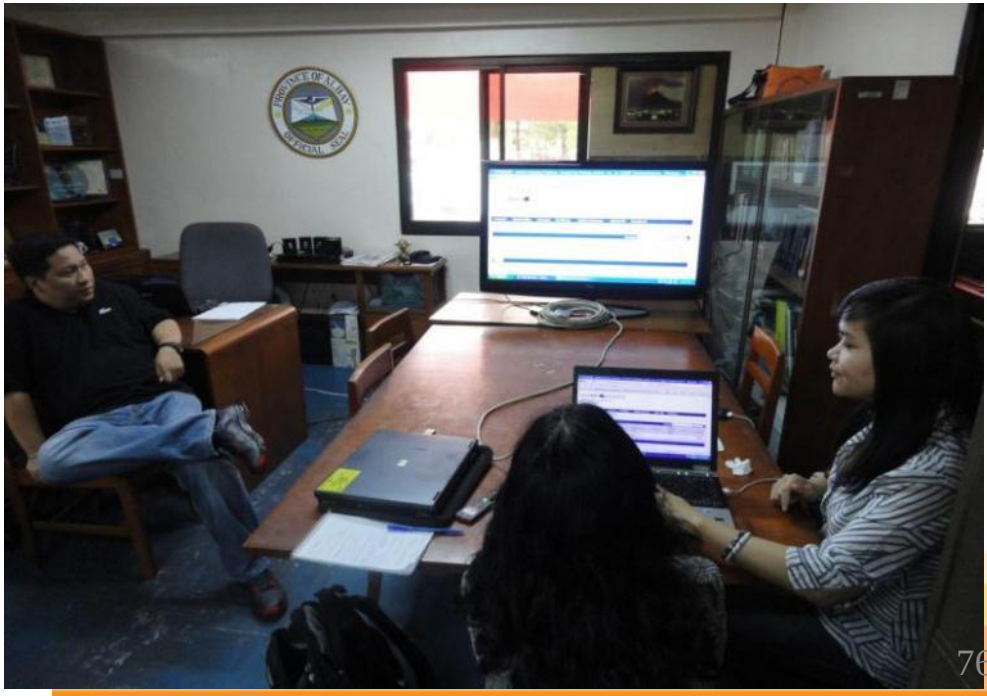
Resources for Warning Communications- INFOBOARD

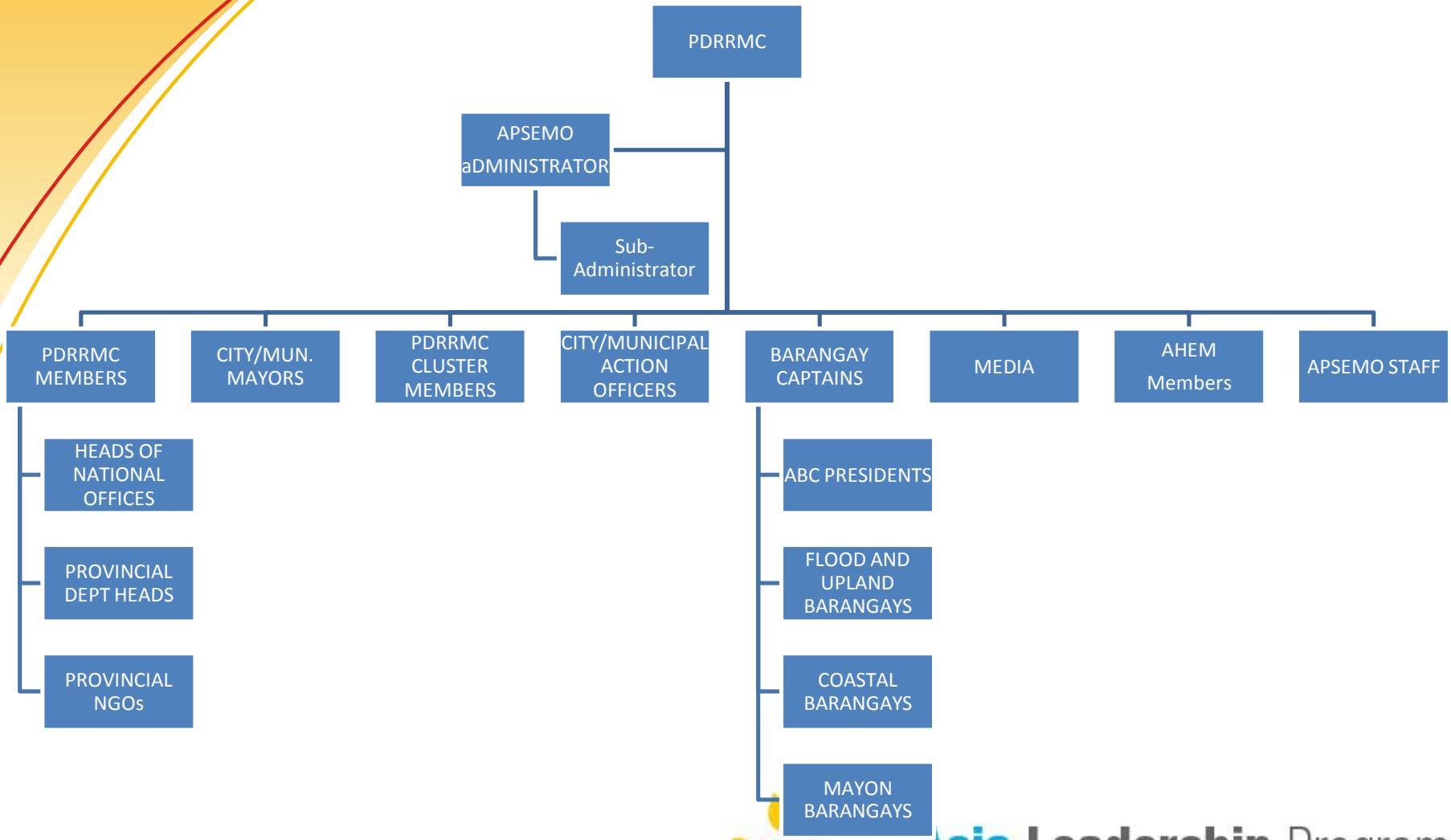
- PDRRMC Executive Office/ APSEMO Dept Head– serve as the administrator of the infoboard.
- APSEMO Selected Staff as Sub-Administrators.
  - Collect and register the cp numbers of all the target recipients in theProvince of Albay.
  - Send emergenmcy communications to selected segment.
- Sectors– recipients of the information sent by the administrator.
- Source of Funds: Private Sector participation!
  - **Smart Phil** – provides free initial sending cost of P30,000
  - PDRRMC may request additional allocation as maybe needed.
  - Feedback will be received by APSEMO by sending "APSEMO space FEEDBACK space (Message) send to 70025229




INFOBOARD - Mobile Solu...
INFOBOARD: Access Details ...
theINFOBOARD
Welcome MARIA CRISTINA ADOR !
chocochoi@yahoo.com
(Content Provider)
Sign Out
Textcast
Mobile Office
Gateway
Feedback
Mobile Exchang
Broadcast Content Management - APSEMO
SECTIONS
Compose
Drafts (0)
Outbox (0)
Sent (0)
Broadcast Mode
Immediate
Scheduled
Subject
Free Text Balance:
5000.00
Message
Prepaid Load Balance:
0



Operational Structure



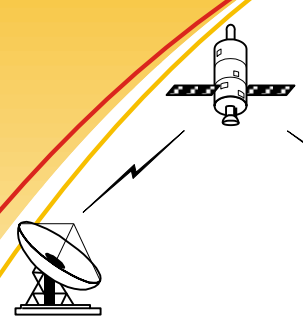
Uses of Infoboard

- Sending
  - important and emergency communication and information to the concerned recipients like:
    - PAGASA and PHIVOLCS bulletins
    - PDRRMC Advisories
    - Emergency instructions from the governor
    - Public Announcements
    - Other important messages
- Receive
  - Feedback from the recipients.
  - Distress call from the barangay.
- Other Uses
  - Data gathering and validation
  - Updates of weather, flood and landslide situations from the field.
  - Dispatch and monitoring of emergency quick response teams (SAR)
  - Media relations.
  - DRRMC Coordination
  - Invitations for emergency conferences

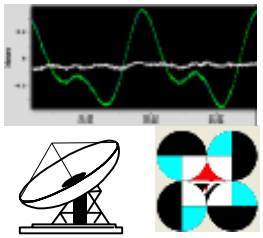
MAINTENANCE AND SUSTAINABILITY

- Minimal budget allocation from PGA through APSEMO.
- Good SMART communication signal in the field
- Use of mobile phone using SMART sim cards or sim cards of other networks
- Phone numbers recognized are those registered by APSEMO to avoid spam messages.
- Use of computer hardwares existing at APSEMO.
- Operations and maintenance of INFOBOARD are through the organic personnel of APSEMO.

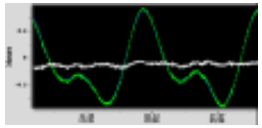
Albay Gulf Tsunami Monitoring System



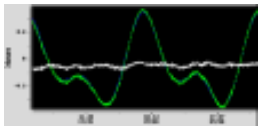
PHIVOLCS

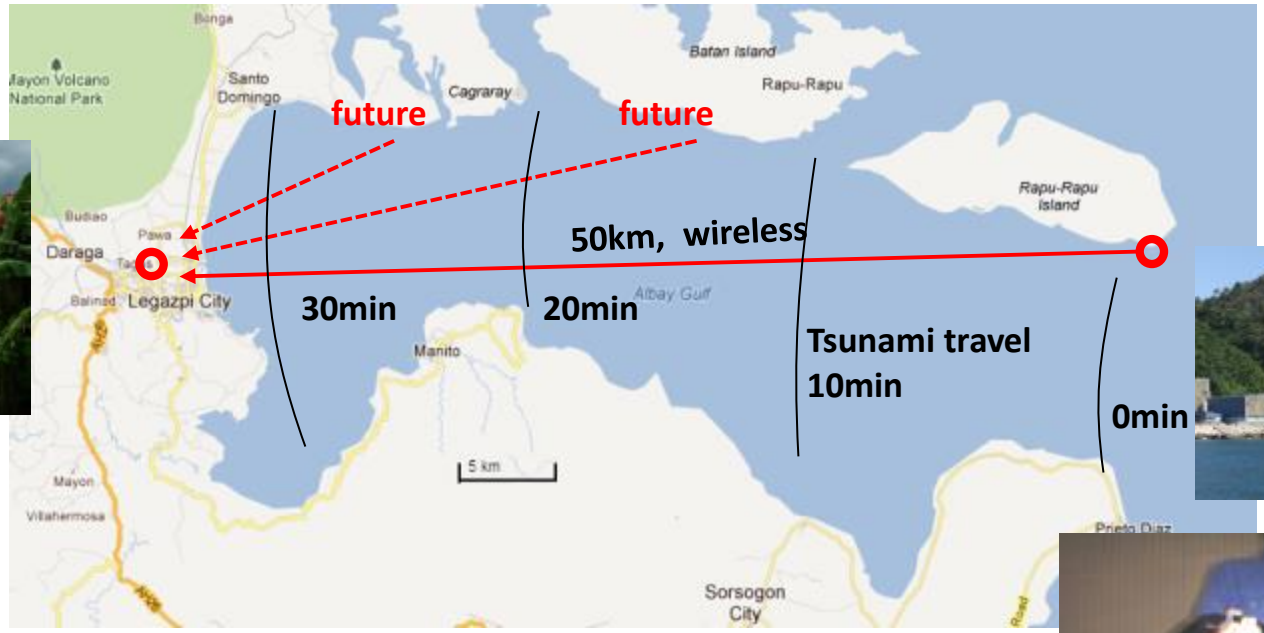


Intern
et



PHIVOLCS
Lignon Hill

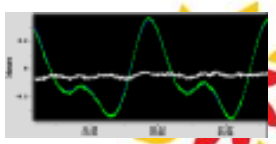




RapuRapu
Mine Port

Wireless
LAN

APSEMO



Tide Gauge

Asia Le
on Sustainable

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Resources for Preemptive Evacuation

- **Safe Evacuation Centers**
  - Construction of Emergency Evacuation Centers.
    - In times of no disaster, they will operate as classrooms or in the case of Daraga as municipal activity centers
    - Cost: P250m
    - Source of Funding: **AECID**, Deped, LGUs
  - Emergency Educational Preparedness Program for Mayon Volcano Disaster Areas
    - In times of no disaster, they will operate as schools
    - Cost: P780m
    - Source of Funding: **JICA**
- **Safe Schools**
  - Validation survey of all school buildings for structural safety (design), safety from hazards (location) and safety for health
  - Provision of water-sanitation facilities to 700 school buildings
  - Source of Funds: DOH HEMS-Unicef

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Physical Capacity-Building: Mobility Assets could evacuate 160,000 persons/day

	LGU Provincial	Nat'l Agencies	Private
Ambulance	59	4	7
Rubber boats	18	8	
Passenger Trucks	3	54	300+
Helicopter		4	1
Firetrucks		26	8
Water Purifying Machine	1 (32t li/hr) from AECID		
Water Tank Lorry	1 worth P3m		
Com Vehicle	1 worth P14m		

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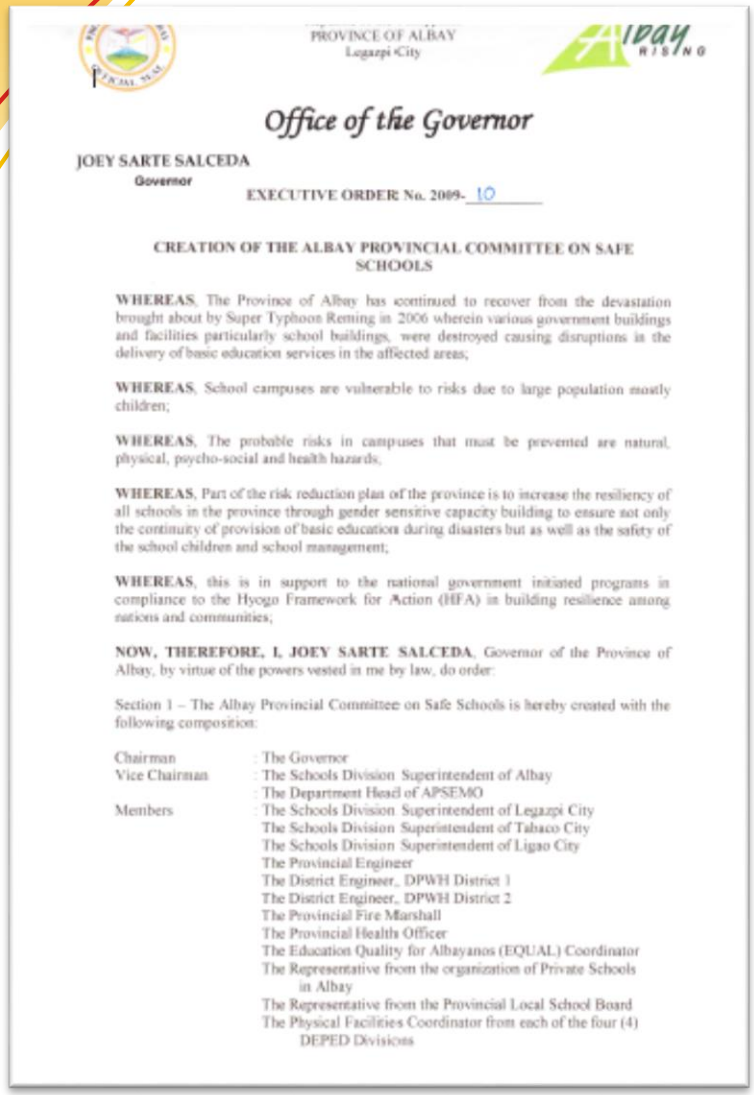
Capacity Buildup: Mobility and Communications

Executive Order Creating Albay Provincial Committee on Safe Schools



PROVINCE OF ALBAY
Legazpi City

ALBAY RISING

Office of the Governor

JOEY SARTE SALCEDA
Governor

EXECUTIVE ORDER No. 2009-10

CREATION OF THE ALBAY PROVINCIAL COMMITTEE ON SAFE SCHOOLS

WHEREAS, The Province of Albay has continued to recover from the devastation brought about by Super Typhoon Reming in 2006 wherein various government buildings and facilities particularly school buildings, were destroyed causing disruptions in the delivery of basic education services in the affected areas;

WHEREAS, School campuses are vulnerable to risks due to large population mostly children;

WHEREAS, The probable risks in campuses that must be prevented are natural, physical, psycho-social and health hazards;

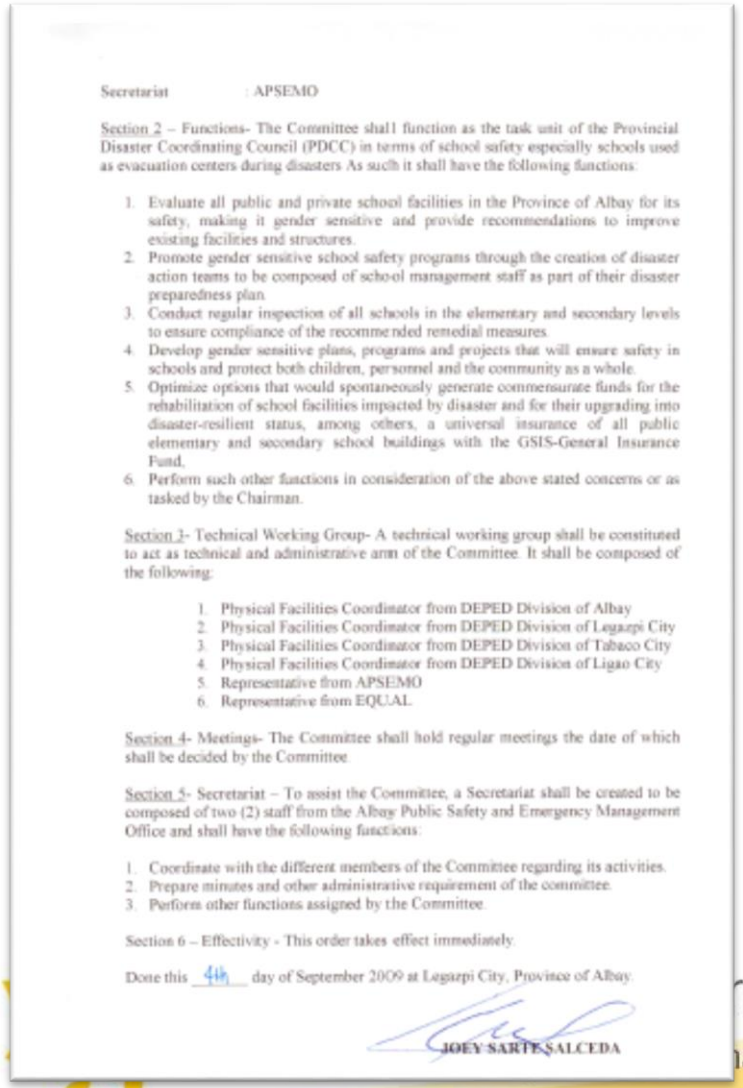
WHEREAS, Part of the risk reduction plan of the province is to increase the resiliency of all schools in the province through gender sensitive capacity building to ensure not only the continuity of provision of basic education during disasters but as well as the safety of the school children and school management;

WHEREAS, this is in support to the national government initiated programs in compliance to the Hyogo Framework for Action (HFA) in building resilience among nations and communities;

NOW, THEREFORE, I, JOEY SARTE SALCEDA, Governor of the Province of Albay, by virtue of the powers vested in me by law, do order:

Section 1 – The Albay Provincial Committee on Safe Schools is hereby created with the following composition:

Chairman	: The Governor
Vice Chairman	: The Schools Division Superintendent of Albay
	: The Department Head of APSEMO
Members	: The Schools Division Superintendent of Legazpi City
	The Schools Division Superintendent of Tabaco City
	The Schools Division Superintendent of Ligao City
	The Provincial Engineer
	The District Engineer, DPWH District 1
	The District Engineer, DPWH District 2
	The Provincial Fire Marshall
	The Provincial Health Officer
	The Education Quality for Albayanos (EQUAL) Coordinator
	The Representative from the organization of Private Schools in Albay
	The Representative from the Provincial Local School Board
	The Physical Facilities Coordinator from each of the four (4) DEPED Divisions



Secretariat : APSEMO

Section 2 – Functions- The Committee shall function as the task unit of the Provincial Disaster Coordinating Council (PDCC) in terms of school safety especially schools used as evacuation centers during disasters As such it shall have the following functions:

1. Evaluate all public and private school facilities in the Province of Albay for its safety, making it gender sensitive and provide recommendations to improve existing facilities and structures.
2. Promote gender sensitive school safety programs through the creation of disaster action teams to be composed of school management staff as part of their disaster preparedness plan.
3. Conduct regular inspection of all schools in the elementary and secondary levels to ensure compliance of the recommended remedial measures.
4. Develop gender sensitive plans, programs and projects that will ensure safety in schools and protect both children, personnel and the community as a whole.
5. Optimize options that would spontaneously generate commensurate funds for the rehabilitation of school facilities impacted by disaster and for their upgrading into disaster-resilient status, among others, a universal insurance of all public elementary and secondary school buildings with the GSIS-General Insurance Fund.
6. Perform such other functions in consideration of the above stated concerns or as tasked by the Chairman.

Section 3- Technical Working Group- A technical working group shall be constituted to act as technical and administrative arm of the Committee. It shall be composed of the following:

1. Physical Facilities Coordinator from DEPED Division of Albay
2. Physical Facilities Coordinator from DEPED Division of Legazpi City
3. Physical Facilities Coordinator from DEPED Division of Tabaco City
4. Physical Facilities Coordinator from DEPED Division of Ligao City
5. Representative from APSEMO
6. Representative from EQUAL

Section 4- Meetings- The Committee shall hold regular meetings the date of which shall be decided by the Committee.

Section 5- Secretariat – To assist the Committee, a Secretariat shall be created to be composed of two (2) staff from the Albay Public Safety and Emergency Management Office and shall have the following functions:

1. Coordinate with the different members of the Committee regarding its activities.
2. Prepare minutes and other administrative requirement of the committee.
3. Perform other functions assigned by the Committee.

Section 6 – Effectivity - This order takes effect immediately.

Done this 4th day of September 2009 at Legazpi City, Province of Albay.

JOEY SARTE SALCEDA

rogram
nate Change

Physical Capacity-Building: Evacuation Centers up to 320,000 persons

Permanent Evacuation Centers (Provincial Government)	3 constructed by Provincial Government funded by AECID 3 being procured funded by AECID 5 are planned, funded by JICA **Total Capacity: 10,200**
School Camps (National Government)	5,128 classrooms of the Dept of Education identified as safe evacuation centers **Total Capacity: 320,000**

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Permanent Evacuation Centers

6 Emergency Evacuation Center from AECID:

- Daraga – Completed as of December 2008
- Guinobatan – 95% Completed
- Camalig – 95% Completed
- Malilipot- For Construction
- Tabaco City- For Construction
- Ligao City- For Construction

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AECID EVACUATION CENTERS

PROVINCE OF CAMARINES SUR
TIWI
MALINAO
POLANGUI
LIBON
OAS
LIGAO
GUINOBATAN
CAMALIG
DARAGA
LEGAZPI
STO. DOMINGO
TABACO
MALILIPOT
BACACAY
PIODURAN
JOVELLAR
MANITO
ALBAY GULF
BURIAS PASS
PROVINCE OF SORSOGON

Permanent Evacuation Centers

AECID Emergency Evacuation Centers

Costing P30M each the EEC consist of:

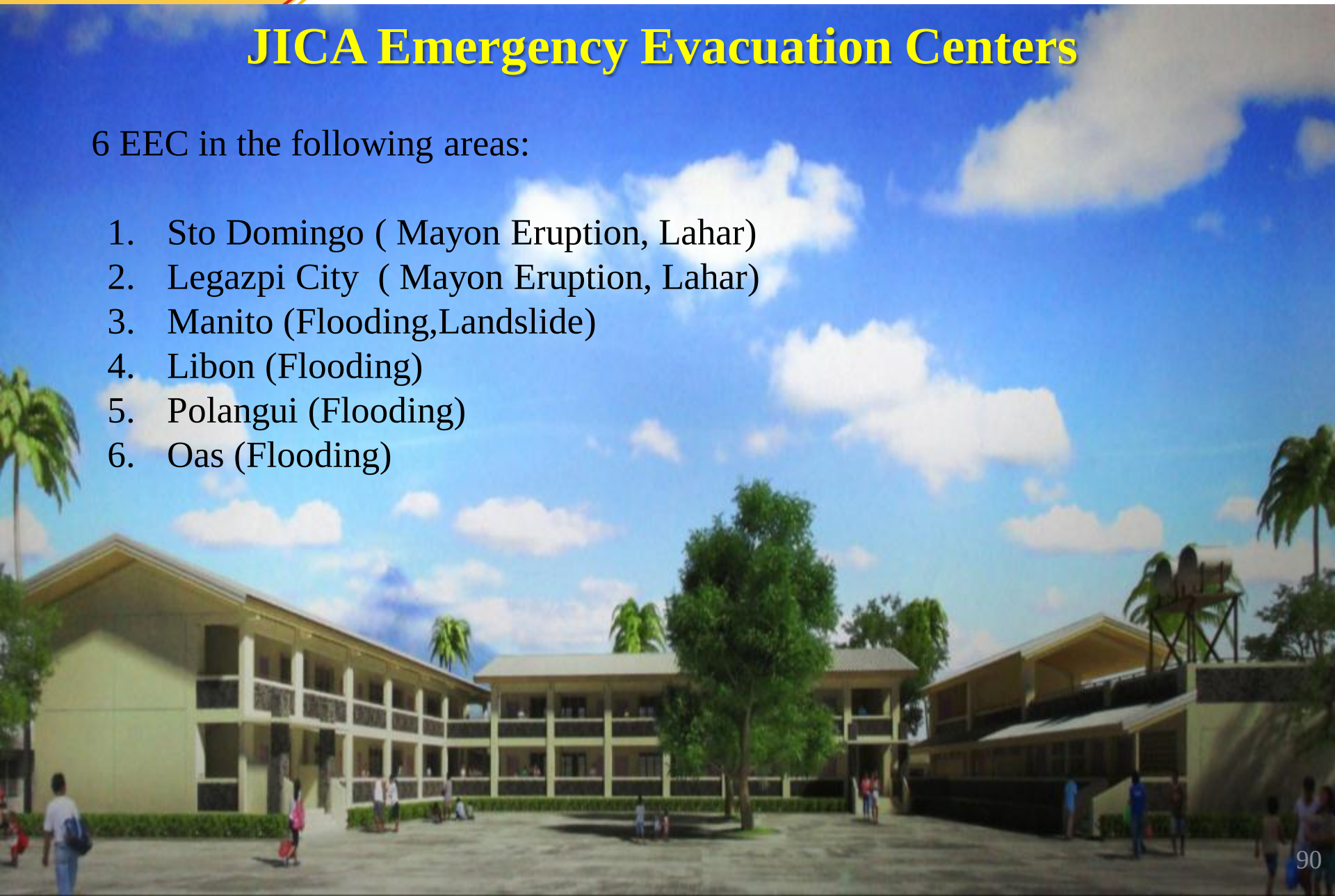
- 10 classrooms (100 Families or 600 Persons)
- 4 office spaces
- 1 community kitchen
- Gender-sensitive WASH: 2 separate bath for 15Male and 15Female
- 2 separate Toilets for 15Male and 15Female (with 1 dedicated for Differently Abled Persons)
- 1 Power House
- 1 Water Pump
- 4 Overhead Water Tanks
- 1 Supply Room for Relief Commodities

Resources for Preemptive Evacuation

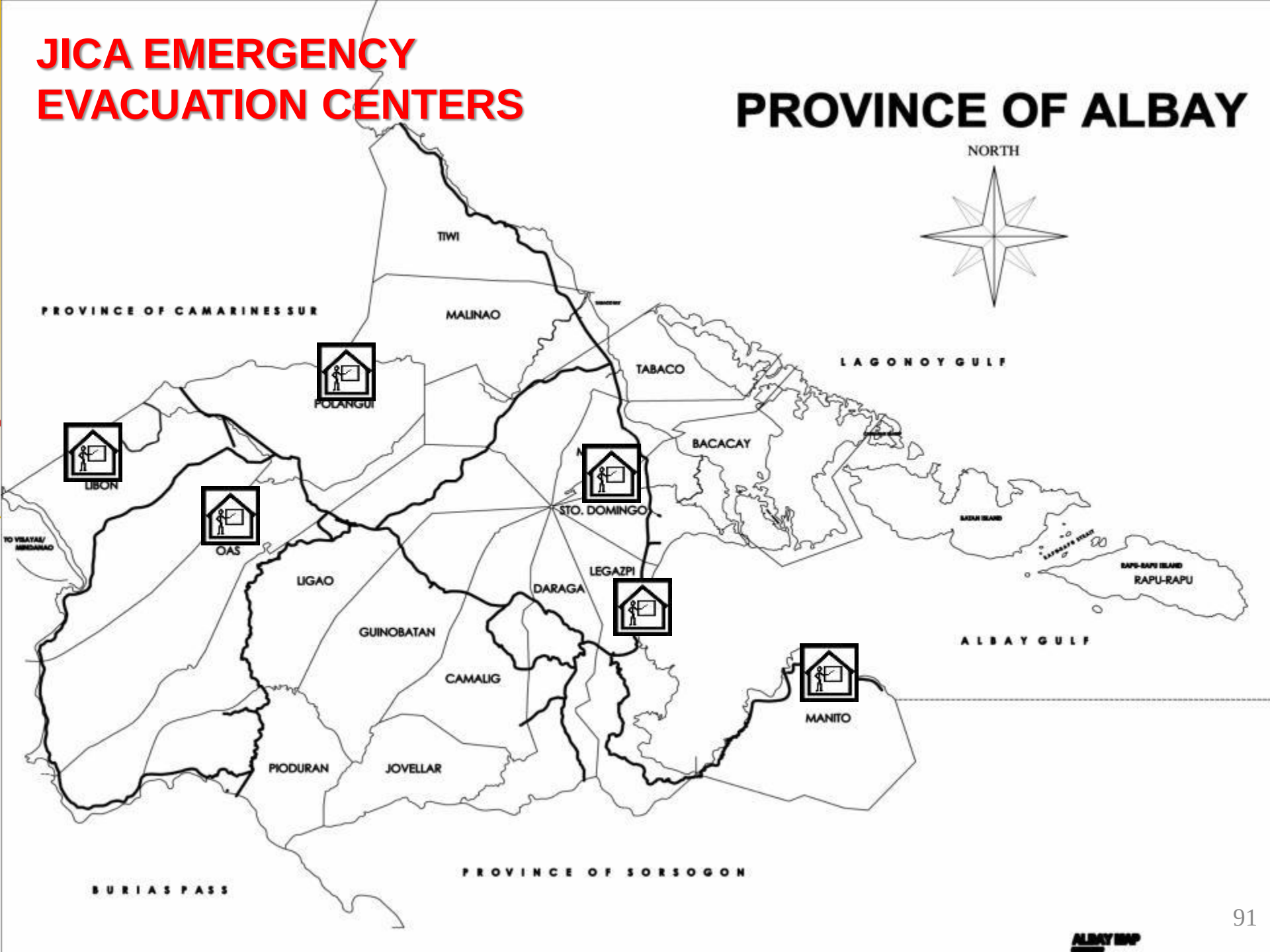
JICA Emergency Evacuation Centers

6 EEC in the following areas:

1. Sto Domingo (Mayon Eruption, Lahar)
2. Legazpi City (Mayon Eruption, Lahar)
3. Manito (Flooding,Landslide)
4. Libon (Flooding)
5. Polangui (Flooding)
6. Oas (Flooding)



JICA EMERGENCY EVACUATION CENTERS



Polangui

Oas

Libon

Gogon (Legazpi)

Manito

Sto. Domingo

Evacuation Centers

ADB

Leadership Program

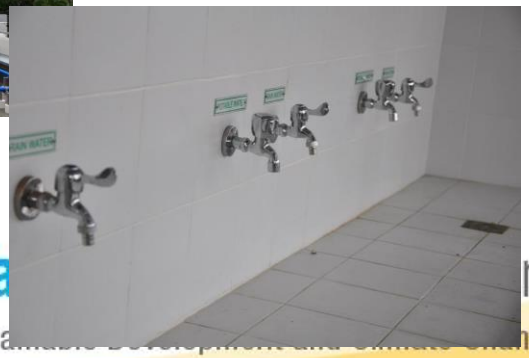
able Development and Climate Change

Evacuation Centers

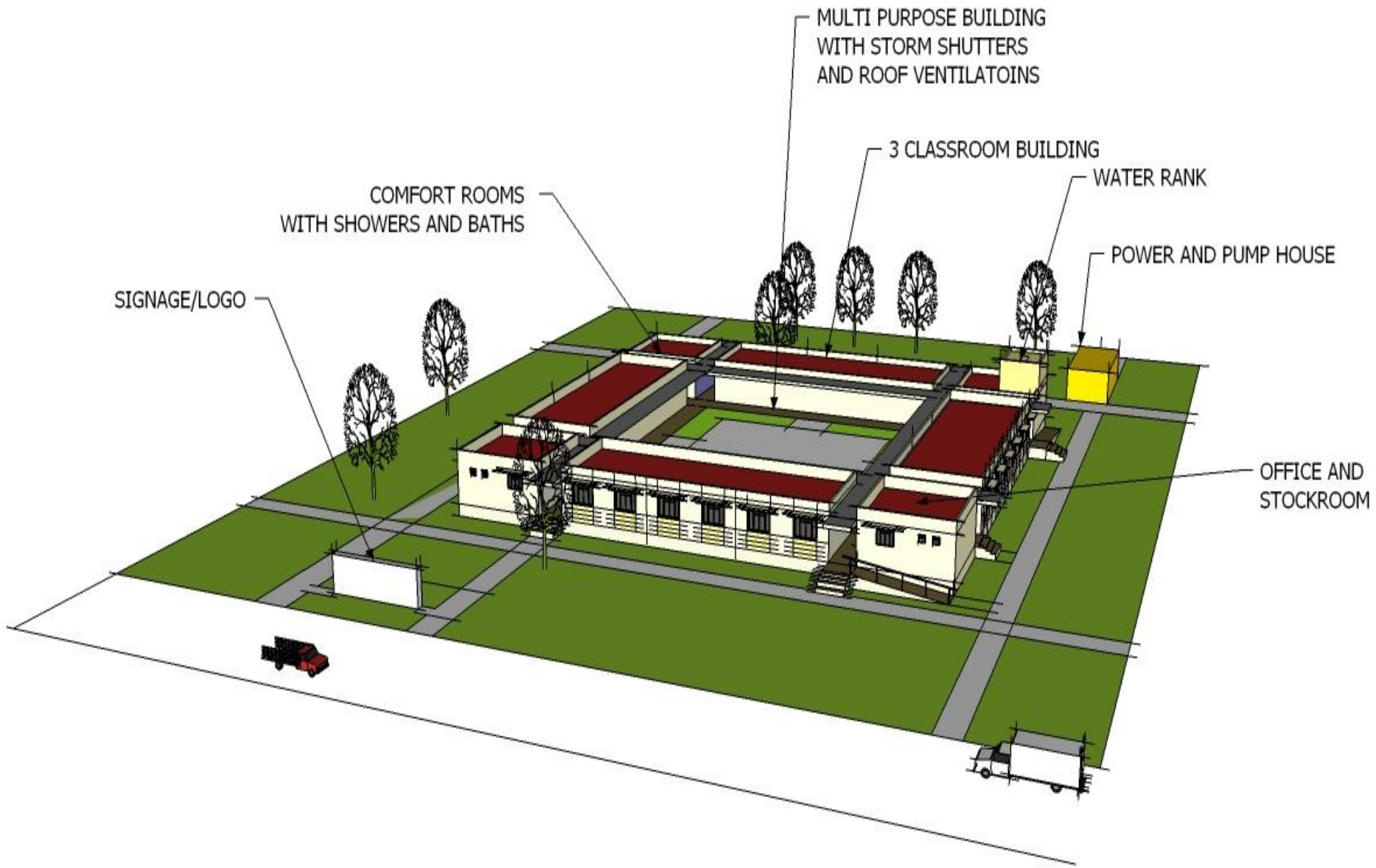
Evacuation Centers

Evacuation Centers

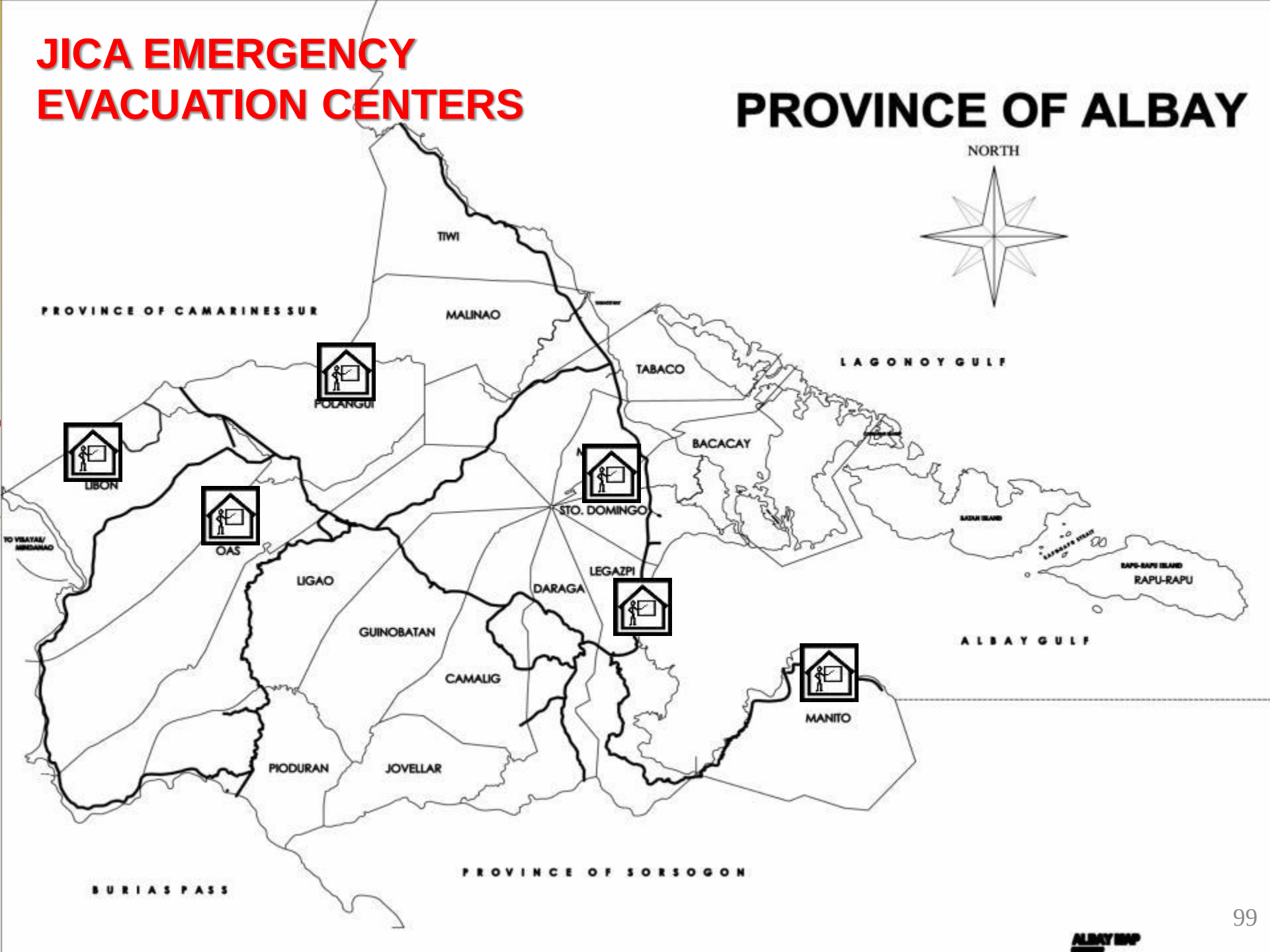
Evacuation Centers



Evacuation Centers



JICA EMERGENCY EVACUATION CENTERS



Resources for Preemptive Evacuation

JICA EEC Facilities: (Cost P50M each)

- Two Storey Building
- 20 classrooms (200 Families or 1,200 Persons)
- 4 office spaces
- 1 community kitchen
- 2 separate bath for Male and Female
- 2 separate Toilets for Male and Female (with 2 dedicated for Differently Abled Persons)
- 1 Power House
- 1 Water Pump
- 4 Overhead Water Tanks
- 1 Supply Room for Relief Commodities

Adaptation 101

1. Rehabilitation is best opportunity for risk reduction
2. Agricultural adaptation: upland sweet potato for lowland rice
3. Economic adaptation: human capital formation for physical capital formation
4. Zero casualty goal subsumes and brings forth all other developmental imperatives

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THANK YOU

TYPHOON DURIAN: FINANCIAL IMPLICATIONS ON ALBAY

	Damage Sustained	Formal / Recorded Sources of Recovery	Amount	Item	Rate of Recovery
1. Public Infrastructure	**4,005**	**27%**	**3,872**		**97%**
Natl Roads/Bridges	2,700	DPWH	1,400	Spcl Item in Natl Budget	
			980	Realignment/Augmentation	
			250	Supplemental Natl Budget	
Provincial Facilities	98	GSIS	28	Insurance Claim	
Natl Health Facilities	148	DOH	78	Spcl Item in Natl Budget	
Local Health Facilities	219	Transfer	160	Spcl Item in Natl Budget	
		AECID	28	Grant	
Educational Facilities					
Basic	630	Deped	630	Spcl Item in Natl Budget	
		AECID	170	Grant	
College	210	CHED	148	Spcl Item in Natl Budget	
2. Agriculture	**903**	**6%**	**340**		**38%**
Crops	570	DA	160	Spcl Item in Natl Budget	
		DAR	180	Spcl Item in Natl Budget	
		PCIC	13	Insurance Claim	
Irrigation	333	NIA	180	Spcl Item in Natl Budget	
3. Private Housing	**10,045**	**67%**	**2,225**		**22%**
Totally Damaged: 112,074	7,845	NHA	750	Spcl Item in Natl Budget	
Partlly Damaged: 99,986	2,200	DSWD	750	Spcl Item in Natl Budget	
		USAID	125	Grant	
		NGOs	300	Grants	
		HDMF	300	P100T home improvement loans	
Total	**14,952**		**6,437**	***Recovery rate from formal sources***	**43%**
			5,078	**Recovery from private sources**	34%
			11,515	**Total Recovery**	77%
			3,437	**Unrecovered**	23%

Damage: 36% of Albay GDP

Less than 0.7 per cent of the total relief aid goes to disaster risk reduction

- Only 0.1% of Aid went to Prevention in 2001 and 0.7% in 2008
- 10% of Humanitarian Relief Funds Agreed in 2009

Indicators for Palay	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Production (in Metric Tons)	107,274	142,425	124,062	104,001	131,895	131,882	155,700	179,467	156,892	148,036
Rank[1]	29	29	33	37		31	27	25	30	34
Per Capita	10.1	13.1	11.4	9.2	11.5	11.3	13.1	14.9	12.8	12.4
Rank[1]	42	43	50	55		53	49	41	51	
Area Harvested (in Hectares)	47,304	53,040	48,300	41,537	45,974	44,441	47,402	51,528	48,174	42,027
Average Yield Per Hectare	2.27	2.69	2.57	2.50	2.87	2.97	3.28	3.48	3.26	3.52
Utilization										
Seeds	3,548	3,978	3,623	3,115	3,448	3,333	3,555	3,865	3,613	3,152
Feeds and Wastes	6,973	9,258	8,064	6,760	8,573	8,572	10,121	11,665	10,198	9,622
Processed	96,753	129,189	112,375	94,126	119,874	119,977	142,024	163,937	143,081	135,262

148k mt of rice produced or only half of demand

Major Temporary Crops	2003		2004		2005		2006		2007	
	Production (in Metric Tons)	Area Harvested (in Hectares)	Production (in Metric Tons)	Area Harvested (in Hectares)	Production (in Metric Tons)	Area Harvested (in Hectares)	Production (in Metric Tons)	Area Harvested (in Hectares)	Production (in Metric Tons)	Area Harvested (in Hectares)
Ampalaya	508.0	71	735.8	78	776.9	78	758.0	75	815.3	77
Cabbage	239.4	25	224.7	25	233.2	25	215.7	22	217.4	21
Camote	38,148.0	5,954	37,811.1	5,954	39,612.2	5,954	39,022.6	5,954	40,053.0	5,960
Cassava	14,348.0	1,867	14,273.3	1,877	15,115.3	1,887	14,863.1	1,887	15,156.1	1,897
Chayote	382.0	55		55	645.0	55	604.0	53	620.0	55
Eggplant	2,501.0	376	2,497.8	376	2,639.9	376	2,638.0	358	2,766.5	365
Gabi	8,644.0	934	8,445.0	934	8,685.7	934	8,665.0	920	8,777.4	925
Ginger	88.2	16	86.0	16	88.7	16	86.1	15	91.6	17
Gourd	178.0	16	656.1	30	678.3	30	664.0	29	675.3	32
Habitchuelas	282.6	74	287.7	72	304.1	72	307.1	70	313.3	75
Mongo	81.0	107	77.5	104	71.5	101	63.4	85	74.1	90
Okra	38.0	9	37.5	9	39.4	9	39.1	9	40.8	12
Peanut	639.9	837	636.1	837	662.5	837	662.4	827	675.5	833
Pepper	113.0	55	109.8	55	117.6	55	112.3	54	118.8	60
Sugarcane	68,669.5	1,060	66,768.8	1,060	68,525.3	1,060	67,800.0	1,040	60,472.7	530
Tomato	1,070.0	249	987.3	245	1,034.1	245	995.0	240	1,039.8	246
Ubi	657.1	90	612.7	81	624.0	78	580.0	75	587.0	75
Watermelon	163.9	38	157.8	38	149.5	60	144.9	30	141.0	30

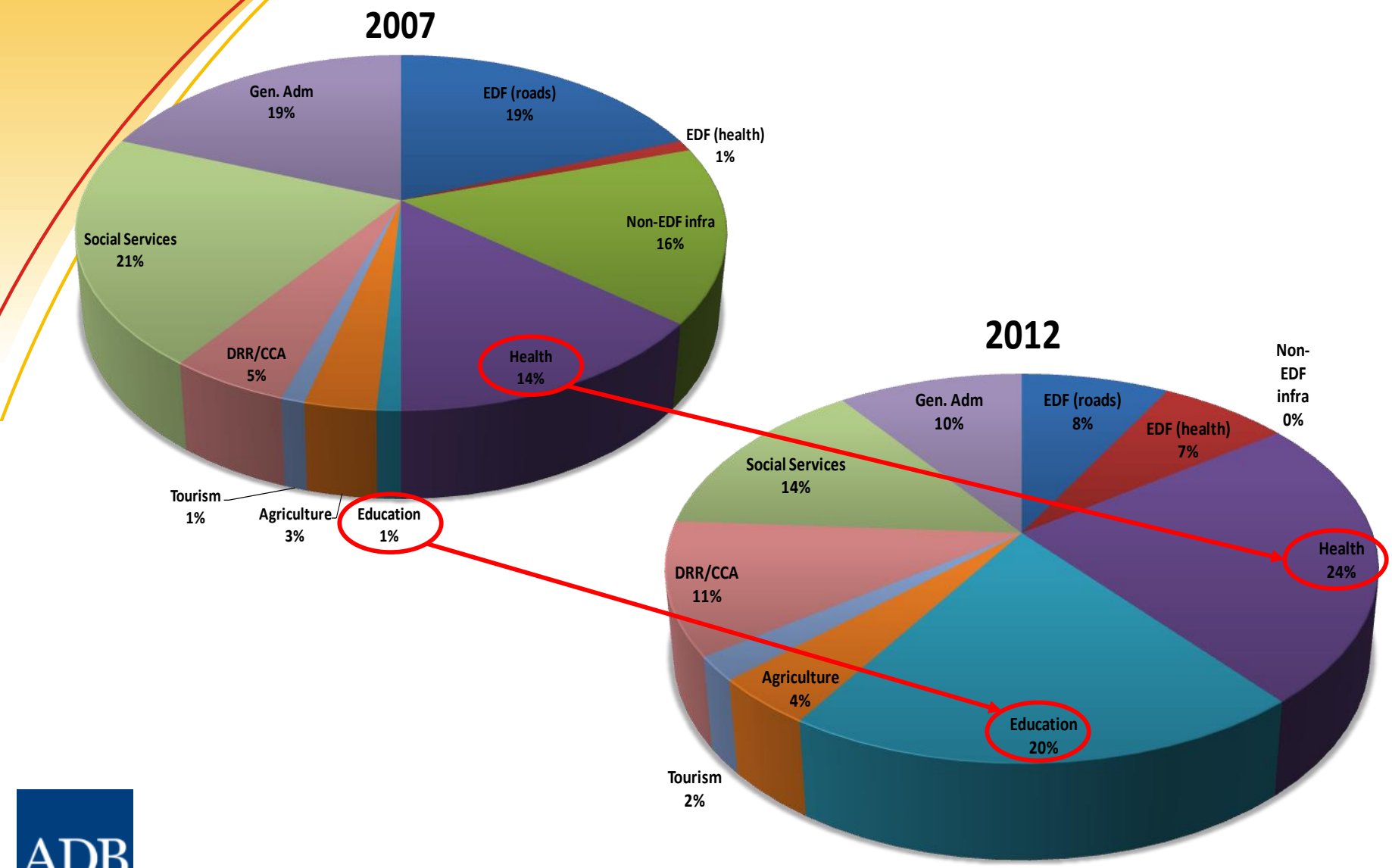
40k mt of camote as substitute for rice

Type of Major Crop	2003		2004		2005		2006		2007	
	Production (in Metric Tons)	Area Harvested (in Hectares)	Production (in Metric Tons)	Area Harvested (in Hectares)	Production (in Metric Tons)	Area Harvested (in Hectares)	Production (in Metric Tons)	Area Harvested (in Hectares)	Production (in Metric Tons)	Area Harvested (in Hectares)
Abaca	1,298	4,824	1,497	5,136	1,533	5,369	1,482	5,369	1,378	5,300
Banana	13,014	1,045	12,165	1,045	12,051	1,045	11,289	967	10,772	967
Cacao	13	90	13	90	14	90	13	90	12	85
Calamansi	158	185	159	167	159	167	153	150	146	150
Coconut	207,158	41,180	172,516	41,180	183,246	41,180	178,853	41,180	144,138	40,180
Coffee	98	341	99	341	100	341	96	335	95	328
Lanzones	2	7	-	2	-	2	-	2	0	2
Mandarin	17	75	16	75	15	75	13	70	13	70
Mango	12	60	12	60	12	60	12	60	9	56
Papaya	926	116	878	119	863	118	780	103	767	103
Pineapple	1,167	105	1,128	105	1,100	100	1,006	80	992	80
Rambutan	-	-	-	3	-	3	10	3	9	3

40k hectares for coconut, the 2nd biggest crop

Source: Bureau of Agricultural Statistics

Albay Provincial Budget



Major Disaster Events in Albay Province 1994-2013:
Zero Casualty in 17 years except 2006 and 2011

Calamities	Date	Classification	Casualty	Damage Cost
1. Typhoon Rosing	Nov. 3, 1995	Destructive	ZERO	P 1.7 B
2. Typhoon Loleng	Nov. 2, 1008	Destructive	ZERO	7.1 B
3. Mayon Eruption	Feb. 2000	Explosive	ZERO	284 M
4. Mayon Eruption	June 2001	Explosive	ZERO	300 M
5. Mayon Eruption	July 2006	Explosive	ZERO	50.5 M
6. Typhoon Milenyo	Sept. 27 2006	Destructive	14 dead	1.3 B
7. Typhoon Reming	Nov. 30, 2006	Destructive	604 dead 419 missing	3.7 B
8. Typhoon Mina, Lando and Nonoy	Nov. 2007	Destructive	ZERO	
9. TECF, Monsoon Rains	Feb. 2008	Destructive	ZERO	127 M
10. Typhoon Dante	April 2009	Destructive	ZERO	
11. Typhoon Ondoy	Sep. 2009	Destructive	ZERO	
12. Typhoon Peping	Oct. 2009	Destructive	ZERO	
13. Mayon Eruption	Dec. 14, 2009 – Jan. 2, 2010	Explosive	ZERO	

DRR/CCA Execution Strategy of Albay

- ☑ **Make MDG a goal, adaptation follows**
  - ➢ **Good goals**
    1. **socially desirable**
    2. **desirably ambitious**
- ☑ **Ordain policies**
- ☑ **Give it a budget**
- ☑ **Execute programs & projects**
- ☑ **Build institutions**
- ☑ **Nurture partnerships & mobilize resources**

- **safe and shared development**
  - MDG achievement
  - HDI improvement
  - Climate-proofed and disaster- proofed (HFA)
- **Zero casualty goal**

- Body of SP ordinances
- 2 national laws on DRR and CCA were based on Albay model (RA 10121 & RA 9729)

- Incremental budget on top of calamity fund
- Budget increase on Education and Health from 15% to 44%

- Disaster risk reduction
- Climate change adaptation
- Strategic shift to human capital formation (health and education) from physical capital formation

- **APSEMO** – Response, 1994
- **CIRCA** – Adaptation, mitigation and IEC, 2007
- **AMDGO** – Social Services / MDG, 2009
- **Climate Change Academy** – Knowledge Mgmt, 2010

- P894m raised from 2007 to 2011, P398m from JICA in 2012 and P30m from OCD

1. DEPT OF HEALTH (DOH)	2010-2011	3,000,000.00
2. DEPT OF HEALTH (DOH)		10,000,000.00
3. DEPT OF SOCIAL WELFARE & DEVELOPMENT (DSWD)		14,000,000.00
4. NCA - DBM		5,000,000.00
5. PCA		5,000,000.00
6. DBM		10,000,000.00
7. DEPT OF AGRICULTURE		20,000,000.00
8. DEPT OF HEALTH (DOH)		24,203,000.00
9. PAS		
10. SLRF		
11. NIA		
12. NCCA - DBM		
13. LGA-AIDS		
14. DBM		
15. PCSO ASSISTED ENDORSEMENT FUND PROGRAM		
16. PGA-NEDA MOA(LGU-SUMMIT)		
17. PAS-PCCARD		262,238.00
18. TF CALAMITY FUND		22,535,242.48
19. CRDESDA		366,000.00
20. DEPT OF HEALTH (DOH)		1,305,000.00
21. PCSO		66,201.06
22. ECCD - EARLY CHILD REC DEVT		2,091,846.83
23. BSWM		147, 964.61
24. GAWAD KALASAG AWARD		50,000.00
25. DEPT OF AGRICULTURE CORN PRODUCTION		564,489.75
26. SEA-K MICRO FINANCING PROGRAM		33,400.00

27. DEPT OF AGRICULTURE		250,059.75
28. MOA NAT'L & LOCAL GOV'T COUNTERPARTING FOR CLASS-ROOM CONSTRUCTION		86,000,000.00
29. DOTC- INT'L AIRPORT		23,000,000.00
30. DOTC		13,000,000.00
31. DEPT OF HEALTH (DOH)		1,800,000.00
32. DBM		1,000,000.00
REG.		
		3,649,200.00
		5,000,000.00
		42,000,000.00
		150,000,000.00
		55,000,000.00
		20,000,000.00
		6,100,000.00
43. DBM		20,000,000.00
44. HOSPITAL UPGRADING PROJECT OF DOH		363,606.50
45. DBM		3,000,000.00
46. DBM		1,000,000.00
47. HEALTH FACILITIES ENHANCE-MENT PROGRAM		66,670,000.00
48. AGRI REHAB-RICE/HUCC	2012	3,500,000.00
49. AGRI REHAB-CORN PROD.	2012	7,000,000.00
50. AKO BICOL PARTY LIST	2012	4,150,000,00
52. PCSO	2012	2,000,000.00
TOTAL		894,002,742.62

P894m mobilized from partners (July 2007-Dec 2011)

Highlights of DRR/CCA Programs

- **Risk Mapping**
  - Comprehensive Land Use Plans
- **Integration into PDP, PDIP, AIP, PPMP**
- **Geostrategic Intervention (Go)**
- **Relocation (Go)**
- **Engineering Interventions (Defend)**
- **Social Preparations (Run)**
  - Community-based Warning and Evacuation Planning
  - Close coordination with Warning Agencies
- **Capacity Build-up**
  - Mobility Assets
  - Permanent Evacuation Center
- **Disaster Response**
  - Pre-emptive Evacuation
  - Pre-emptive Healthcare
- **Cluster Approach to Early Recovery**

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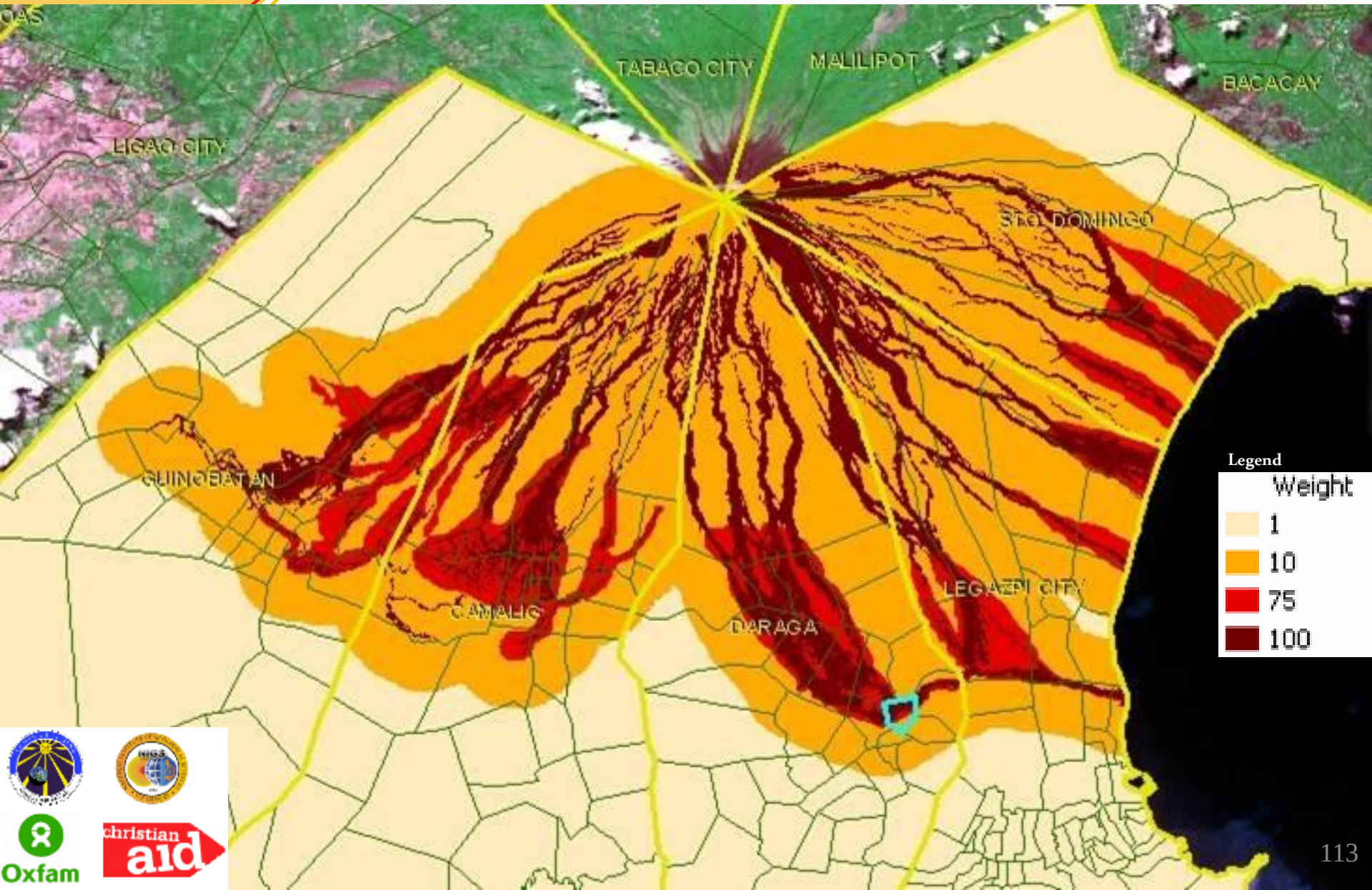
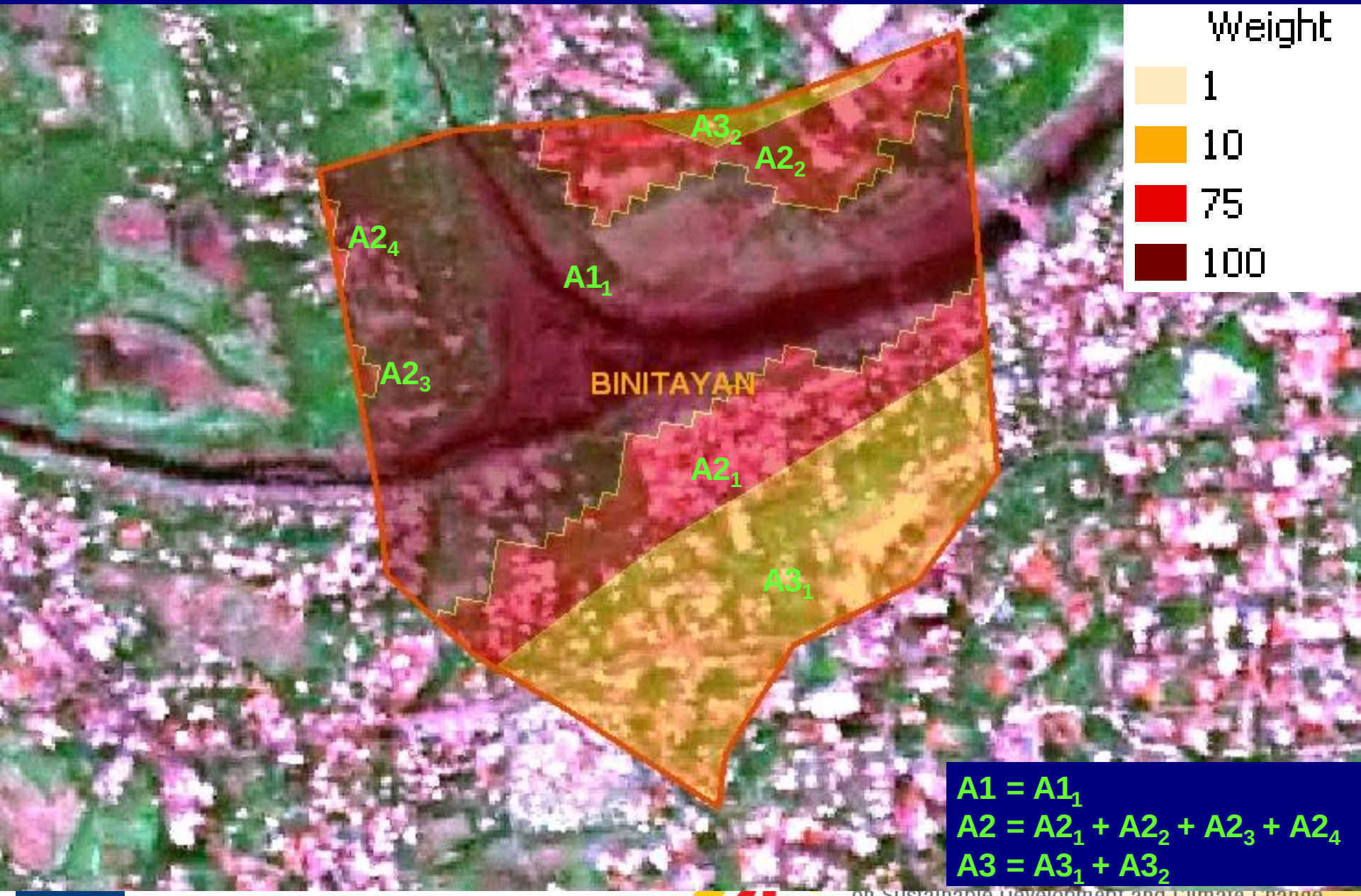
STARTING THEM EARLY

Lahar Hazard Map

Lahar Hazard Map



HAZARD SCORE = $\Sigma(w^2 \times \text{Area})$



on Sustainable Development and Climate Change

LAHAR HAZARD SCORE = 100^2 (A1) + 75^2 (A2) + 10^2 (A3)

Disaster Risk Ranking of Albay

Type of Disaster Risk	Type of Hazard	Ranking
Climate Weather Related	(Historical) Typhoons	5th
	(Projected) Rainfall Increase	1st
	(Projected) Temperature Increase	16th
	(Historical) El Nino	54th
Geophysical (History)	Earthquake-Induced Shallow Landslides	1st
	Earthquakes	59th
	Tsunami	1st
	Volcanic Eruptions	2nd

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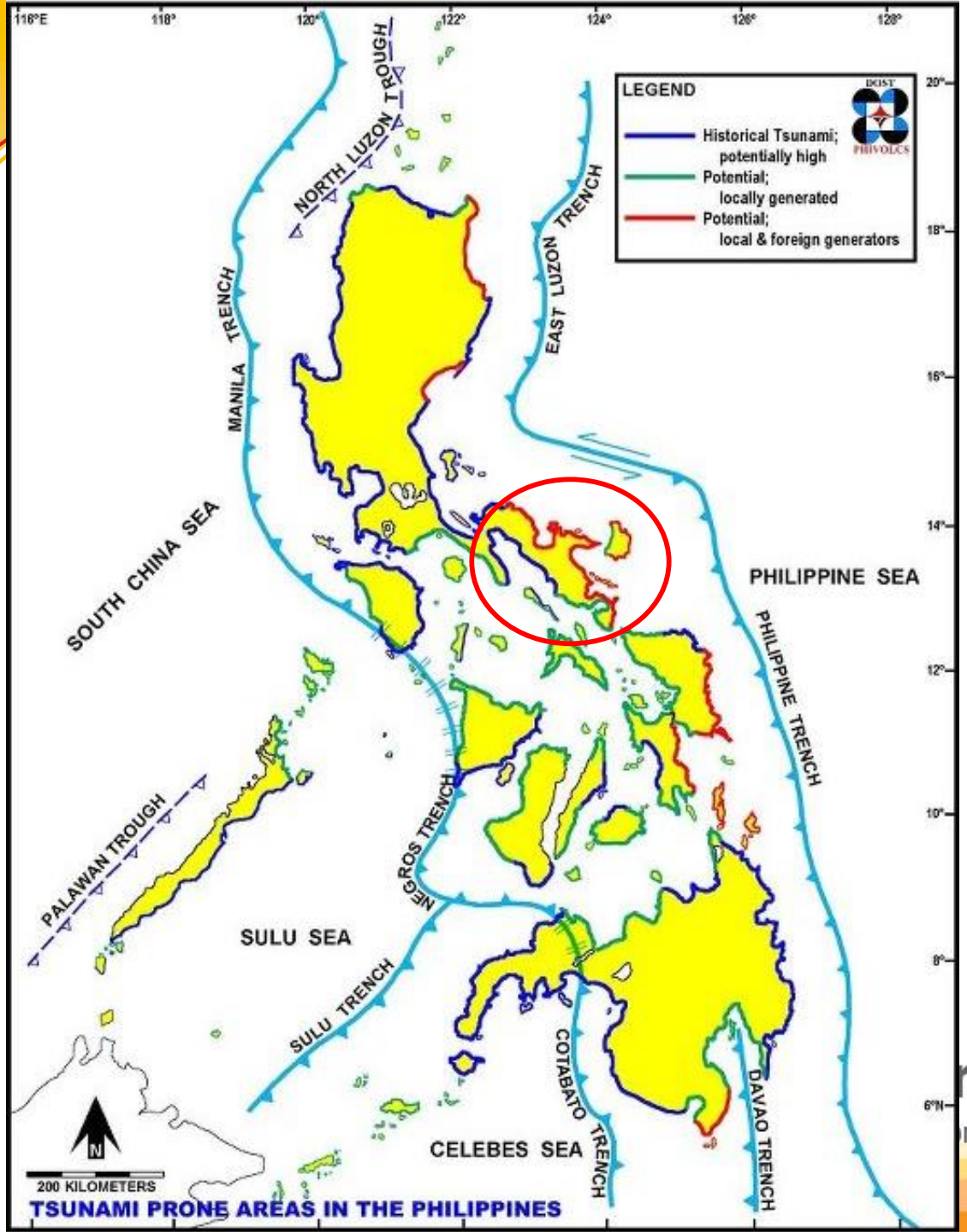
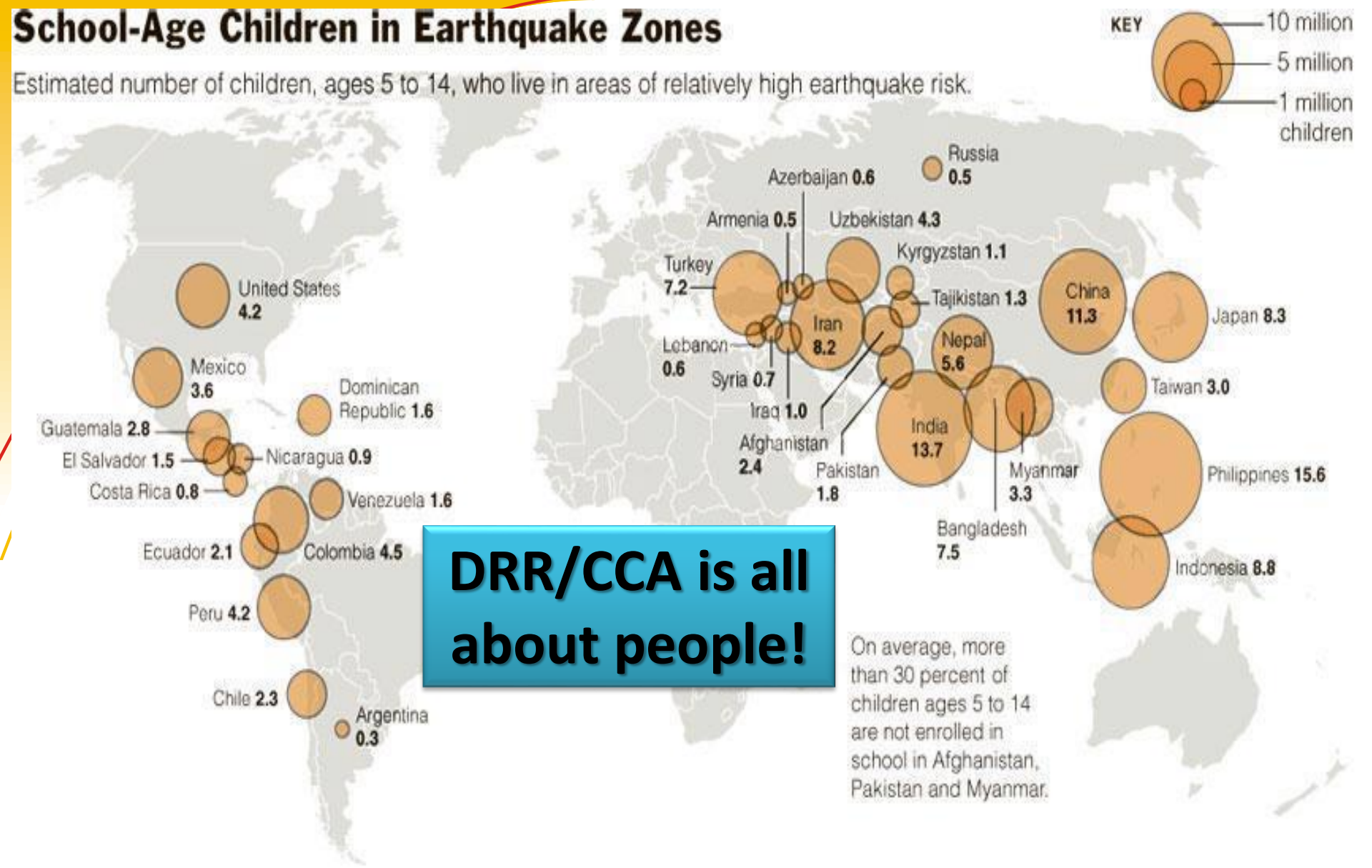

LEGEND
Historical Tsunami; potentially high
Potential; locally generated
Potential; local & foreign generators
NORTH LUZON TROUGH
MANILA TRENCH
EAST LUZON TRENCH
SOUTH CHINA SEA
PHILIPPINE SEA
PHILIPPINE TRENCH
PALAWAN TROUGH
NEGROS TRENCH
SULU SEA
SULU TRENCH
COTABATO TRENCH
DAVAO TRENCH
CELEBES SEA
200 KILOMETERS
TSUNAMI PRONE AREAS IN THE PHILIPPINES

School-Age Children in Earthquake Zones

Estimated number of children, ages 5 to 14, who live in areas of relatively high earthquake risk.



Sources: Susana Adamo and Maria Muñiz, Center for International Earth Science Information Network, Columbia University. Population estimates are based on data from the 2005 Gridded Population of the World data set and from the United Nations (with the exception of China, which is based on the Statistical Yearbook of the Republic of China, 2006). Earthquake hazard estimates are based on data from the Global Seismic Hazard Program.

THE NEW YORK TIMES

THANK YOU

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