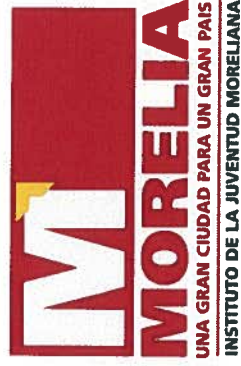


Trueque Verde



For a clean environment
and healthy food

For the Sustainable Food Policy Board, May 23, 2011



¿What is this presentation about?:

Trueque
Verde



- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

What is it?

Where did it start?

How does it work?

Where is it?

Why would it
benefit Austin?

Contact

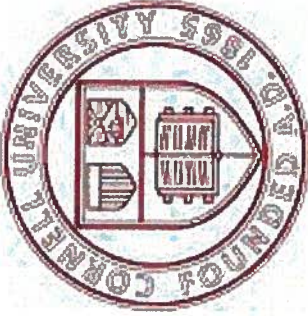
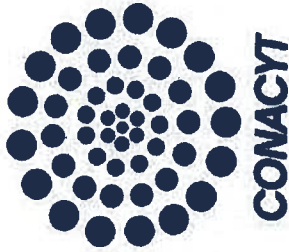
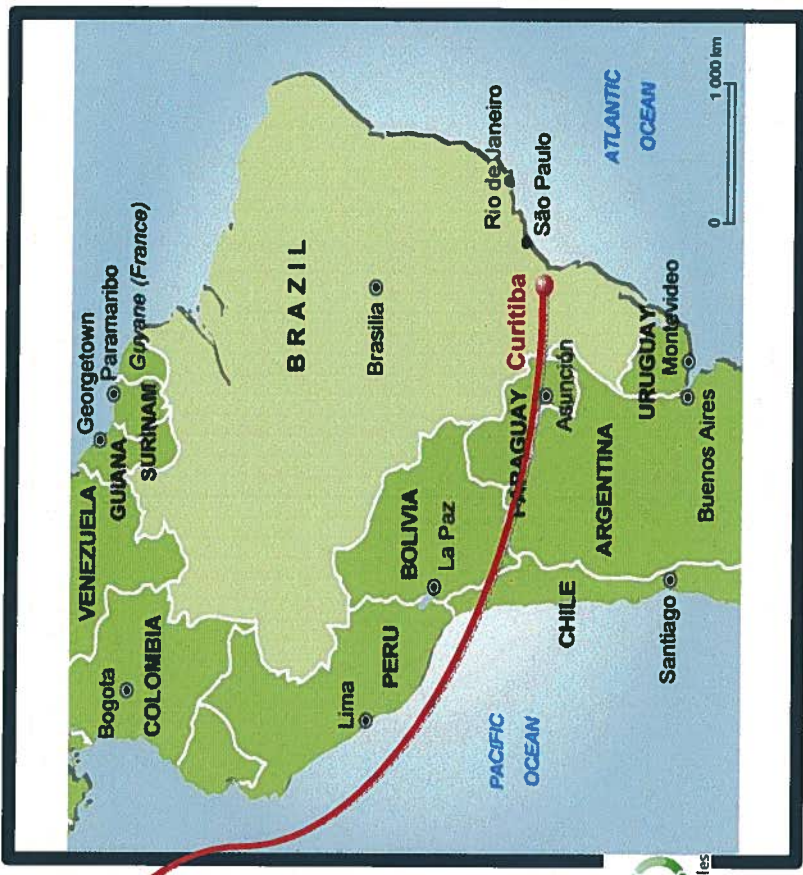
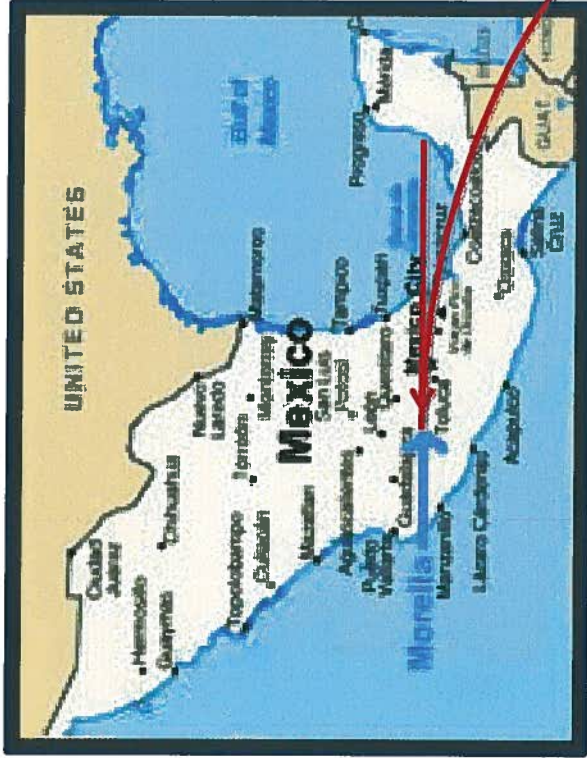
1. ¿What is Trueque Verde/Green Barter?

- The green barter program is a way to raise interest for the environment and change attitudes and habits among low-income communities and beyond.
- The barter of recyclable materials diverts tons of waste from the landfill and helps support regional farmers.

www.solurso.org



2. ¿Where did Trueque Verde start?



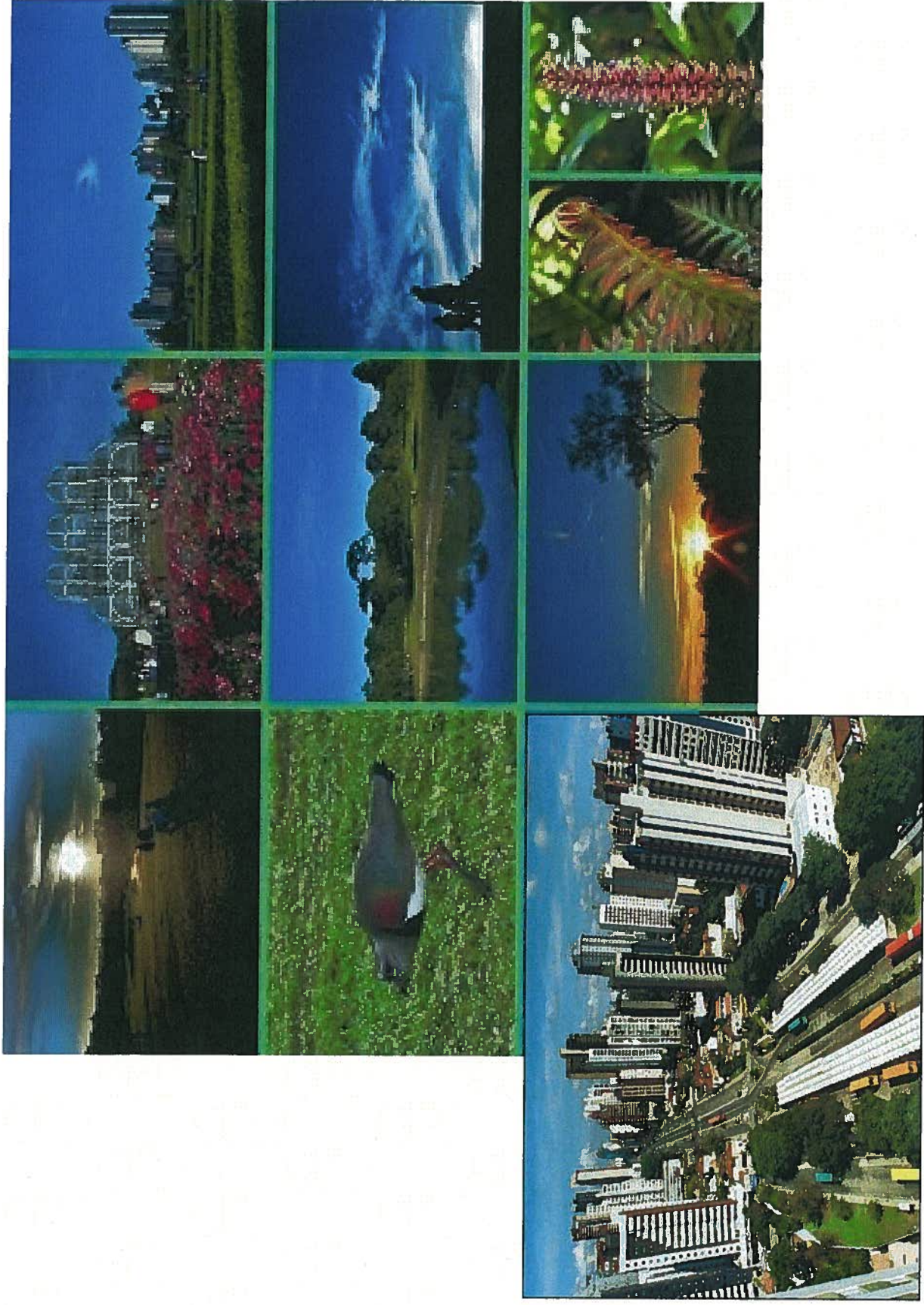
CURITIBA
A CIDADÃO DA GENTE

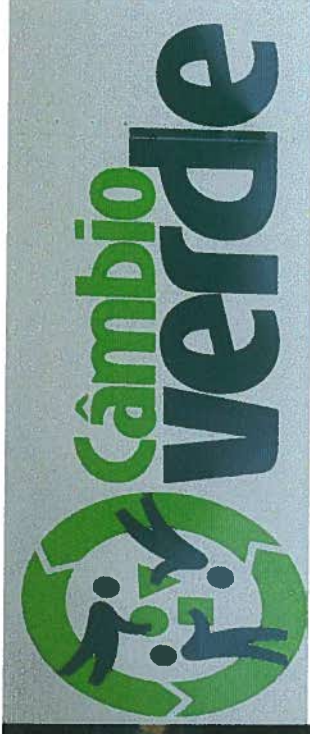


CGI U
CENTRO DE GESTÃO E ESTUDOS ESTRATÉGICOS



Curitiba:

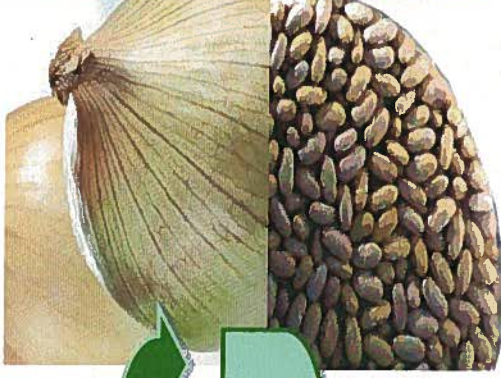




- Created in 1989, started in 1991 to help address the surplus of agricultural production around the Curitiba region.
- So far it has provided more than **65,000 millions tons of nutritious food.**
- Cambio Verde distributes **15.25 tons of produce daily.**
- It has been widely accepted by the citizens who **participate proudly** in the program.

3. How does it work?:

4 Kg of recyclables × 1 Kg of food



- Newspapers, magazines, cardboard
- Paper: sheets, envelopes, receipts
- Orange juice and milk cardboard
- Aluminum and metal cans
- Beverage bottles (plastic and glass)
- Food containers
- Tubes and cables
- Bulky items, cooking oil and batteries

- Onions
- Tomatoes
- Green tomatoes
- Squash
- Chili
- Cabbage
- Mangos
- Avocados

- Beans
- Rice
- Oats
- Puffed wheat
- Brown sugar

How does it work?

Participants come to the exchange point once a week and bring their recyclables. Once materials get weighed they receive a coupon.



How does it work?

Participants take this coupon to the truck in front and exchange it for fresh, local produce and take them home.



How does it work into sharing
the message?

The city wide marketing campaign included printed advertising mainly promoted in schools, local stores and social events as well as a jingle popularized by local radio and TV

POR QUE SEPARAR O LIXO RECICLÁVEL DO ORGANICO ?

- A separação do Lixo Que Não é Lixo poupa a natureza e, consequentemente, o meio ambiente de vilas para a cidade.
- Para se ter uma ideia, 1 tonelada de alumínio usado reciclado equivale a 5000 quilos de minério extraído.
- Plástico velho, quando reciclado, se transforma em plástico novo, diminuindo o uso de petróleo.
- Para se fazer 1 quilo de vidro e preciso 1 quilo e 300 gramas de sílica. Mas com 1 quilo de vidro quebrado se faz exatamente 1 quilo de vidro novo.
- Cada 50 quilos de papel usado transformado em novo evita que uma árvore seja cortada. Imagine quantas árvores Curitiba já salvou nos últimos anos!

POR QUE SEPARAR O LIXO RECICLÁVEL EM 4 PARTES?

Além de facilitar o trabalho da coleta, a separação do lixo reciclável em 4 partes (metais, plásticos, vidros e papéis) aumenta a porcentagem de reciclagem desses materiais, preservando ainda mais a natureza.

E para incentivar todos os curitibanos a dar esse passo além na separação do lixo, foi criada a nova turma do SE-PA-RE.

QUEM É QUEM NA NOVA TURMA.

Vidrovaldo
Representante dos vidros. É um simpão, legal, porém muito sério, principalmente em relação aos seus atributos. Por ser muito sério, geralmente ele demonstra mais seriedade do que esta turma inteira. Ele também é o dono do melhor bar da cidade, o bar Vidro do momento, e sua cor oficial é o verde.

Plástico
Representante dos plásticos. Acabou de sair da escola, sempre cheio de ideias, é extremamente otimista, gosta de ir a todo o tempo para a escola para fazer o seu trabalho, ele se demora todo o tempo quando alguém faz um elogio. Tem 20 anos, é muito simpático, tem 25% de sua cor oficial e o vermelho.

Ed Metal
O mais peculiar da turma. Representando os metais, é autêntico, tem muito orgulho e pertencimento. É um adolecente com todas as manias de adolescentes, como usar gaitas, gostar de hip hop e música eletrônica. Tem 16 anos e sua cor oficial é o amarelo.

Papalinho
Representante dos papéis. É um sempre alegre, divertido e cheio de ideias. Ele gosta de fazer coisas legais e sempre está com uma ideia nova. Ele tem 10 anos e sua cor oficial é o azul.

Folha
É a menina da turma, sempre muito tranquila, basicamente ela representa o lixo orgânico. Ela é muito simpática e gosta de estar com todos, ela também é a melhor amiga de todos os amigos, ela também é a melhor amiga de todos os amigos, ela também é a melhor amiga de todos os amigos.

A CAMPANHA

A nova campanha publicitária do Lixo Que Não é Lixo terá o objetivo de resgatar a história do programa e ao mesmo tempo, lançar a nova turma.

Para isso, conta com comercial de TV, jingle especial interpretado pelo cantor Marcos Têmisia, cartilha, adesivos, anúncios de revista e jornal, mobiliário urbano, busdoors, bairros, outdoors, entre outras peças que terão o objetivo de colocar a turminha bem perto de cada morador da cidade.

Mas todo esse esforço só produzirá o resultado esperado se realmente todos participarem. Inclua-se você.

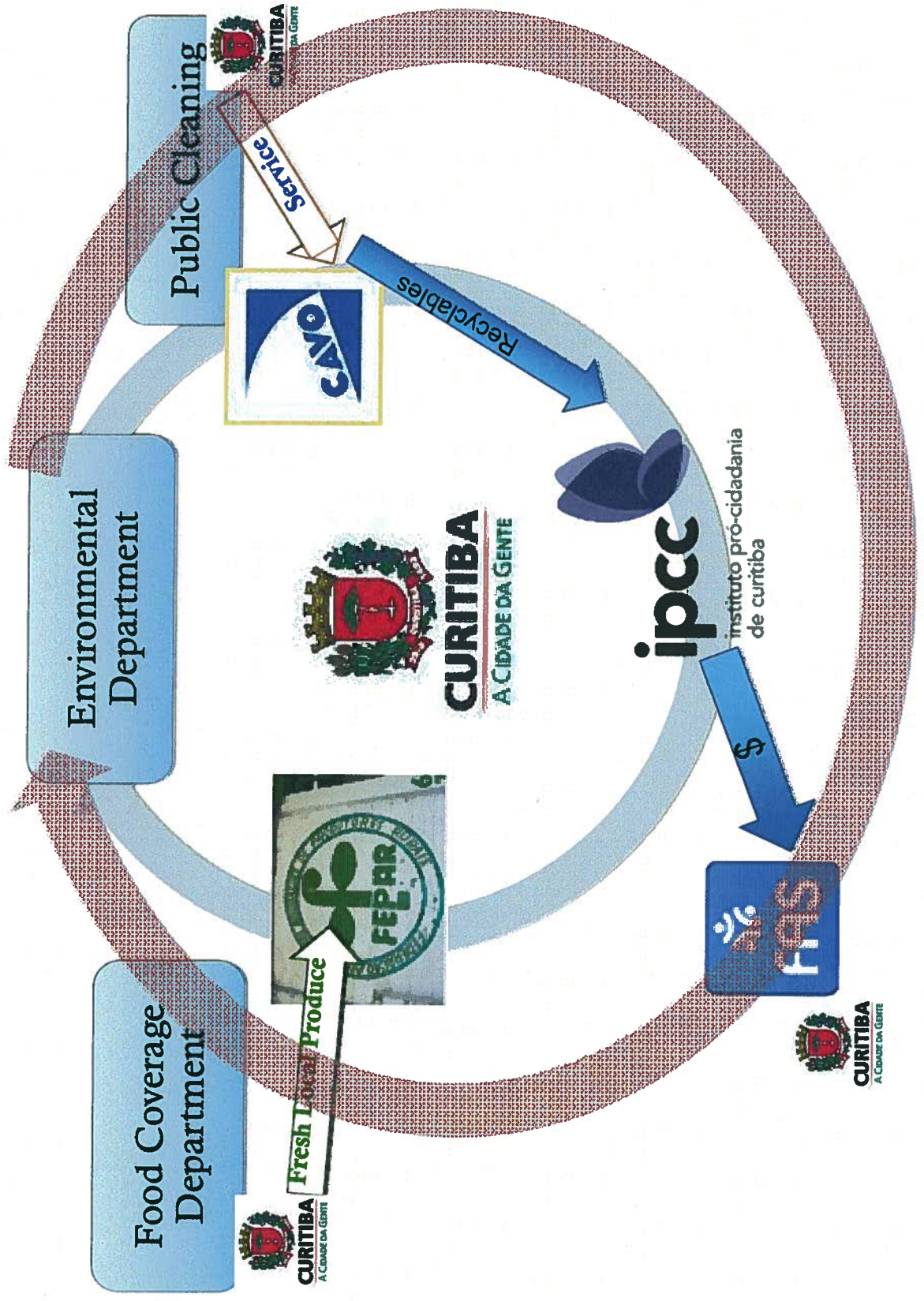
Comece dando o exemplo e passe essa ideia para frente. A natureza agradece. E sua qualidade de vida também.

Curitiba precisa de você. SE-PA-RE.

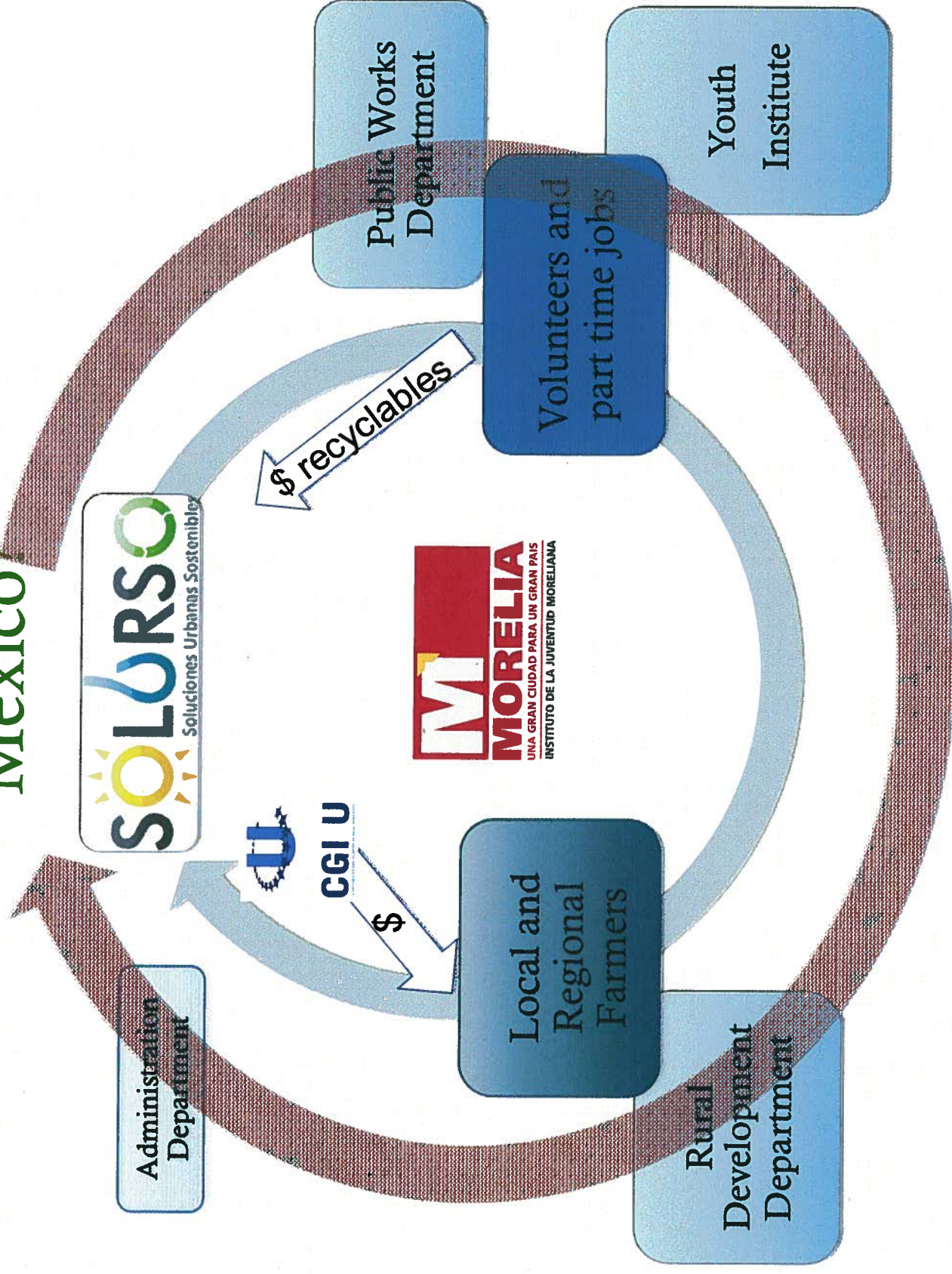
If they seem all mixed
to you, stop drinking.
If you continue seeing
them mixed at home,
start separating them.

100 yrs	3 month	200 yrs	4000 yrs
Metal  Ed Metal	Papel  Papelucho	Plástico  Plastilde	Vidro  Vidrovaldo
Se você está vendo todos eles misturados aqui, pare de beber. Se continuar vendo todos eles misturados na sua casa, comece a separar.  			
Every 3 months!	6-8 times	depends	Every 8-12 weeks!

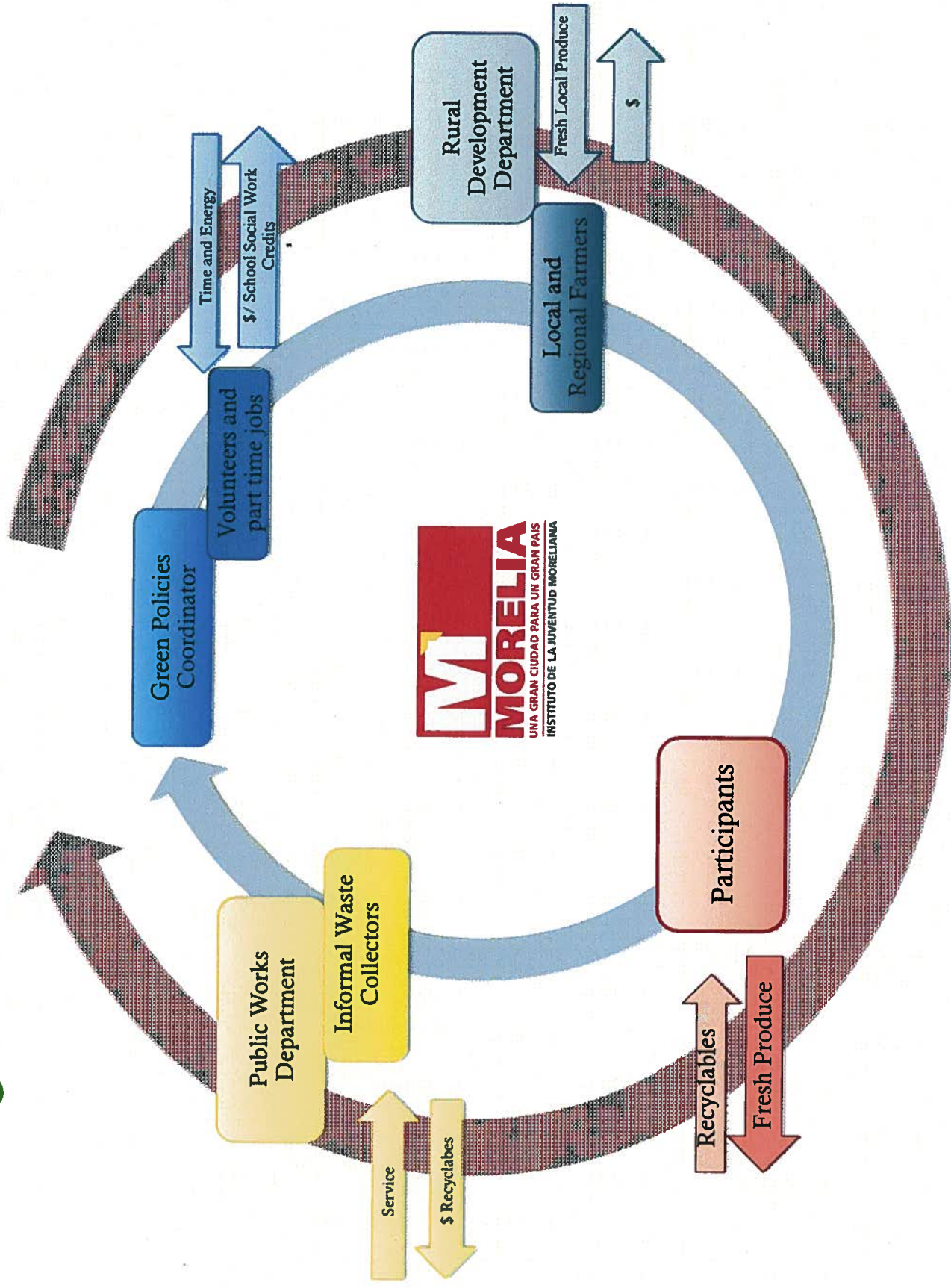
How does it work internally?



Mexico?



¿How does it work now? :



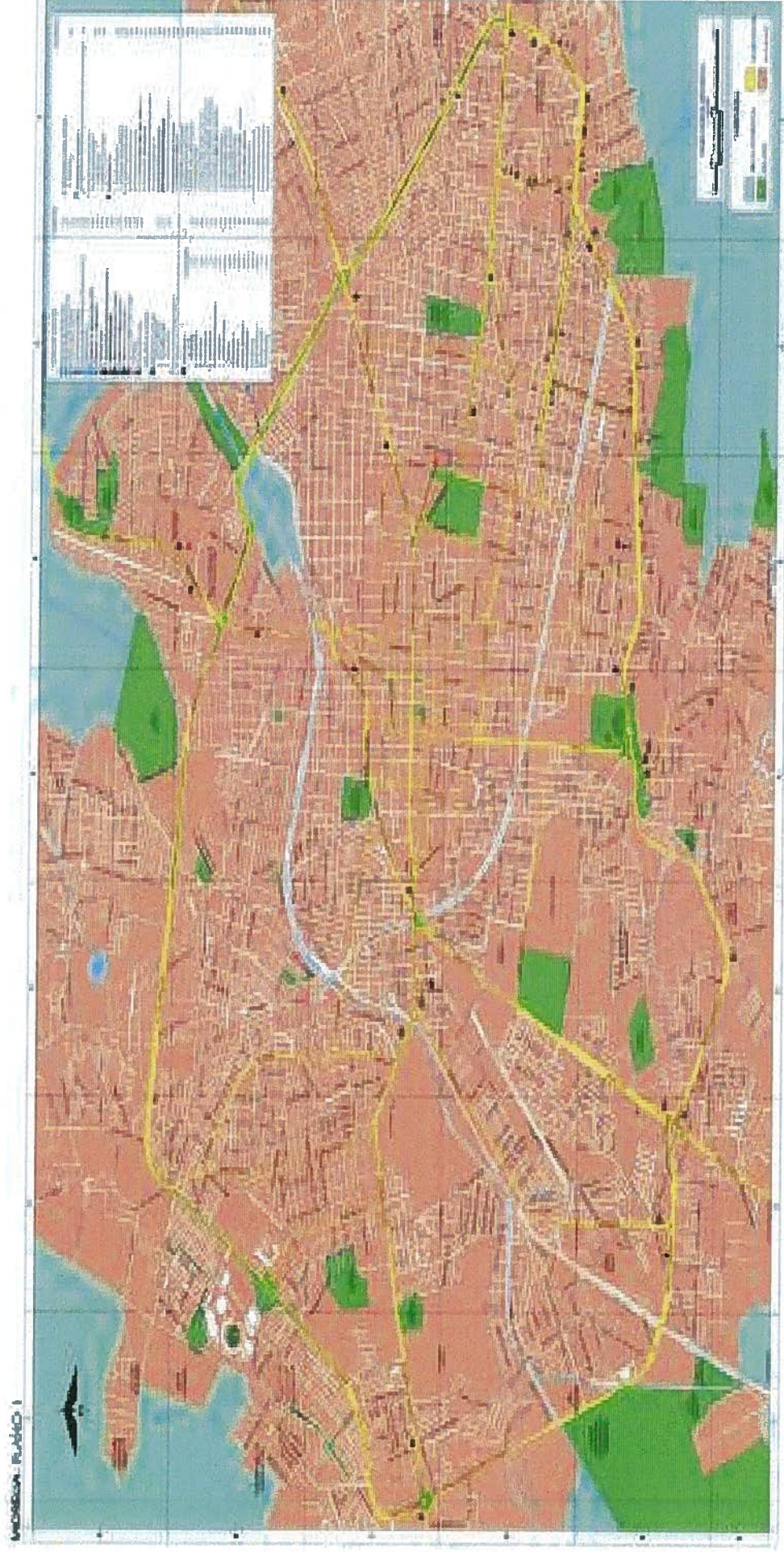
4. Where is Trueque Verde ?



A vertical strip of five cartoonish, green, alien-like characters. Each character has a large, round head with two large, black, circular eyes. They have a small, pointed nose and a wide, open mouth showing a pink tongue. They are wearing green, form-fitting suits with a small, circular emblem on the chest. The characters are arranged in a line, with their heads tilted at different angles, giving the impression of a sequence or a group of similar beings. The background is a plain, light color.



Where is Trueque Verde in Mex?



Where is Trueque Verde?

Is in neighborhoods with
people that make less than

We started in five communities
(about 5,000 households)

- CAPULA
- CUTO de la E.
- TEREMENDO
- MORELOS
- TEREMENDO

- Starting March the city will
expanded the program to 11
more low-communities
throughout the city



Why would



be beneficial for Austin?

Evaluating the chance to replicate and adapt best practices to a specific culture and context:

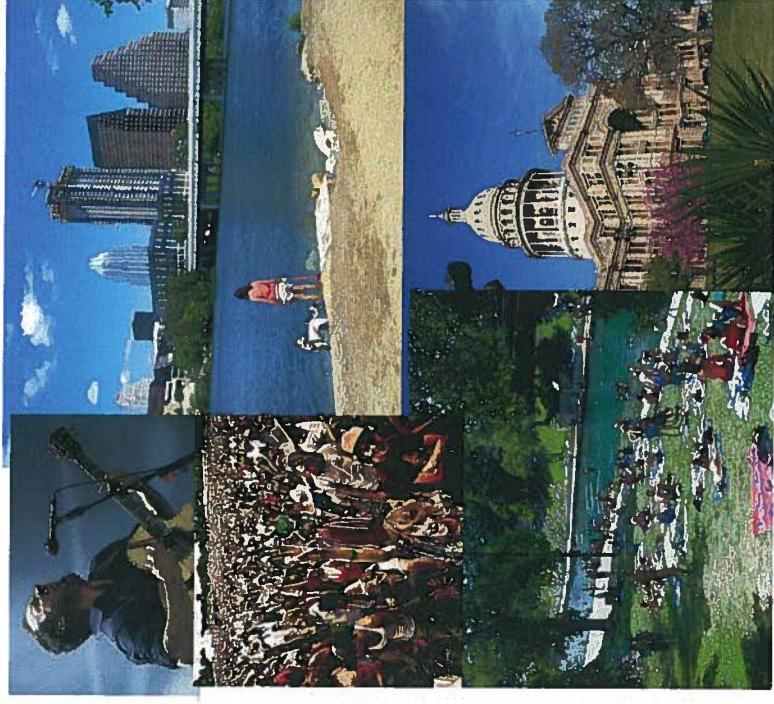
Curitiba



Morelia



Austin



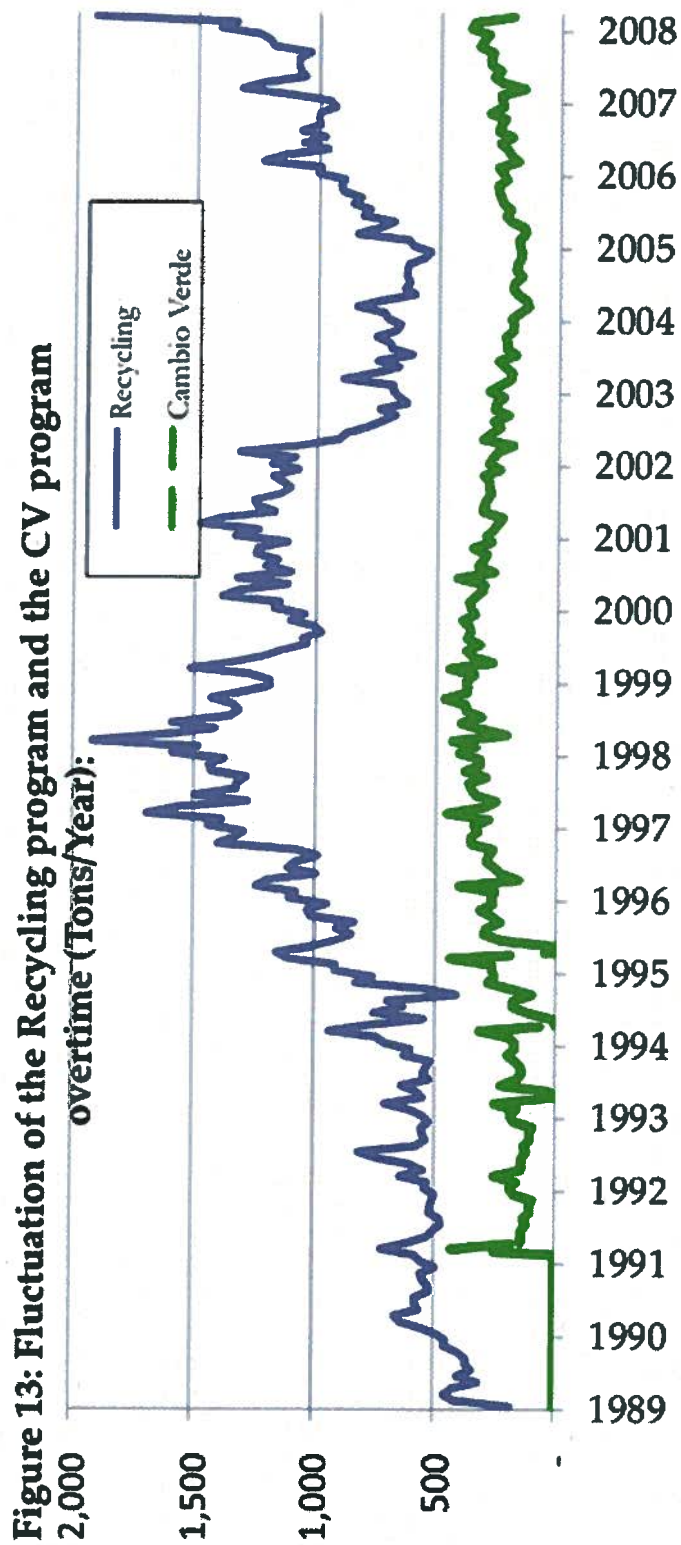
QUADRO DEMONSTRATIVO EM TONELADAS
"O LIXO QUE NÃO É LIXO"

MÊS	ANO																					Total
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	
Jan	0,00	418,05	680,06	808,10	545,39	548,35	768,06	1.154,79	1.192,02	1.566,59	1.625,90	1.337,34	1.311,61	1.392,74	1.070,47	761,71	734,05	749,78	1.142,74	1.223,51	1.790,97	20.602,24
Fev	0,00	312,22	561,08	528,06	602,50	572,77	548,73	1.011,31	993,63	1.279,18	1.414,75	1.213,88	1.115,43	1.171,49	908,75	668,00	598,51	688,75	964,03	1.058,89	0,00	16.207,94
Mar	0,00	399,26	575,09	501,99	732,48	635,82	750,63	913,10	1.108,92	1.495,77	1.590,20	1.138,85	1.323,38	1.242,22	882,72	750,88	641,02	814,58	1.086,81	1.081,00	0,00	17.644,50
Abr	0,00	340,40	578,95	469,63	812,08	521,88	632,00	845,30	1.077,41	1.326,51	1.355,84	1.038,38	1.103,43	1.257,36	795,74	609,58	621,26	787,01	975,90	1.088,19	0,00	16.234,05
Mai	0,00	382,31	520,66	473,88	574,58	546,50	694,95	911,20	985,82	1.321,16	1.315,50	1.053,92	1.206,89	1.150,56	735,31	692,14	634,77	856,42	1.075,20	1.066,55	0,00	18.197,60
Jun	0,00	384,94	523,87	518,74	535,49	533,41	408,80	833,60	1.076,86	1.285,08	1.340,36	977,62	1.158,51	1.108,64	677,67	703,21	833,85	825,04	996,08	1.038,38	0,00	15.540,25
Jul	0,00	396,61	543,66	515,88	548,69	517,48	538,83	1.013,46	1.397,57	1.426,41	1.425,28	1.006,16	1.248,37	1.139,83	741,11	757,39	628,02	898,87	1.005,61	1.190,23	0,00	16.940,46
Ago	0,00	452,48	552,38	507,62	553,20	625,02	826,32	1.028,85	1.329,88	1.436,43	1.302,89	1.103,68	1.238,96	1.160,07	630,15	677,17	593,15	908,92	1.000,81	1.204,66	0,00	17.121,42
Set	0,00	448,21	492,08	498,16	621,47	599,03	765,77	947,37	1.264,63	1.376,83	1.191,48	1.045,84	1.119,53	1.076,45	664,67	659,78	534,81	895,00	933,05	1.245,90	0,00	16.296,28
Out	179,32	483,55	552,67	537,53	548,96	704,81	912,57	1.104,31	1.438,90	1.587,83	1.191,87	1.171,22	1.332,23	1.183,97	686,91	710,05	607,12	1.008,47	858,17	1.408,38	0,00	18.302,82
Nov	413,88	550,64	577,90	527,90	600,89	737,96	912,61	1.075,88	1.385,11	1.484,64	1.275,24	1.148,01	1.238,77	1.090,54	889,95	728,72	629,80	991,39	1.121,80	1.342,71	0,00	18.524,24
Dez	452,02	634,02	716,68	639,75	704,37	935,58	1.104,17	1.239,73	1.692,49	1.916,90	1.514,58	1.365,03	1.477,31	1.315,43	892,88	838,38	837,59	1.229,22	1.318,01	1.923,59	0,00	22.769,71
TOTAL	1.045,22	5.182,89	6.852,04	8.325,44	7.278,16	7.478,59	8.852,44	12.078,90	14.973,04	17.504,33	16.547,89	13.619,43	14.872,42	14.308,30	9.376,33	8.555,01	7.660,95	10.651,46	12.558,21	14.889,97	1.790,97	212.381,79
TONINÊS	348,41	430,22	571,00	527,12	606,51	623,22	737,70	1.008,58	1.247,75	1.458,69	1.378,99	1.134,95	1.239,37	1.192,36	781,36	713,82	638,41	867,82	1.046,52	1.240,83	1.790,97	19.601,51
TONDIA	13,94	17,21	22,84	21,08	24,26	24,93	28,51	40,26	49,91	58,35	55,16	45,40	49,57	47,88	31,25	28,52	25,54	35,50	41,86	49,83	71,64	784,06

QUADRO DEMONSTRATIVO EM TONELADAS
PROGRAMA "CÂMBIO VERDE"

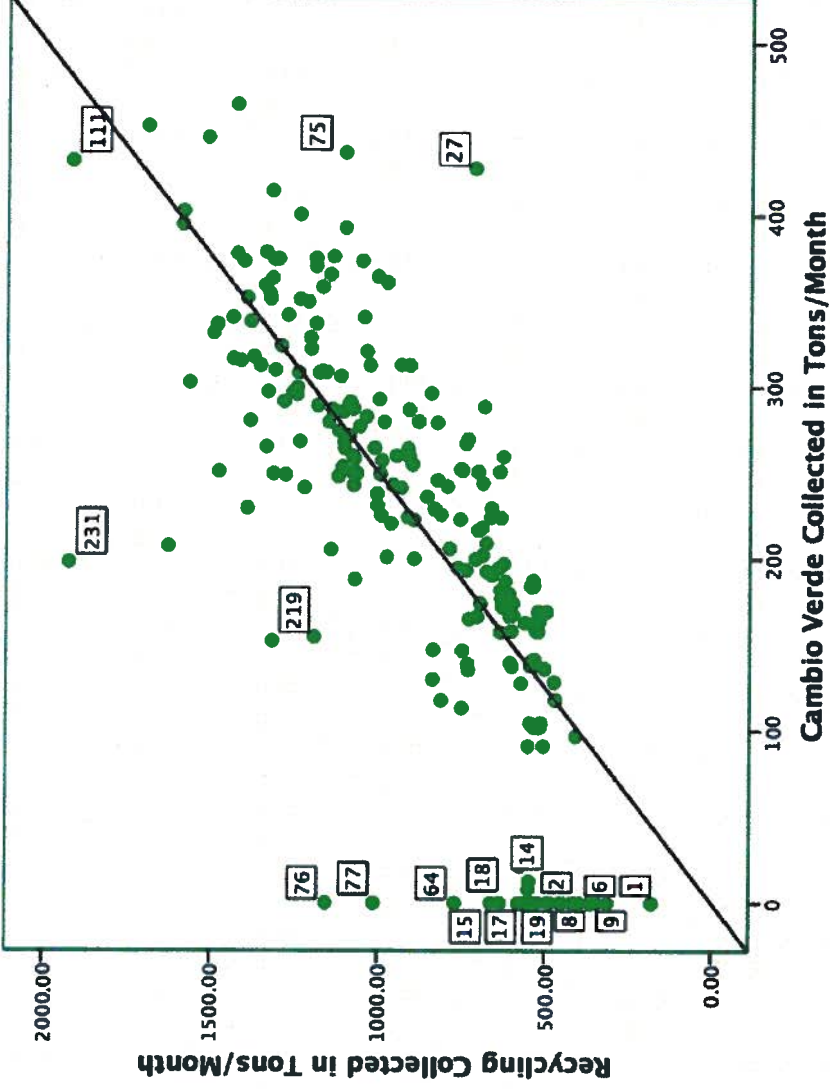
MÊS	ANO																					Total
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	
Jan	0,00	0,00	0,00	140,00	9,08	8,07	0,00	0,00	154,67	303,12	207,99	285,78	310,24	230,07	188,34	194,70	139,40	147,10	205,84	241,83	286,39	3.042,63
Fev	0,00	0,00	0,00	138,00	69,66	21,50	12,85	0,00	225,69	249,99	315,77	349,99	306,63	309,56	312,80	224,54	174,31	202,21	229,97	277,29		3.411,09
Mar	0,00	0,00	0,00	136,00	226,63	224,14	113,68	224,34	283,81	331,98	394,84	376,20	414,44	308,41	280,31	291,81	194,50	226,05	249,89	260,57		4.166,66
Abr	0,00	0,00	0,00	118,07	198,63	157,65	178,99	298,58	287,53	351,74	312,90	324,01	264,50	287,43	242,49	179,74	188,94	205,89	201,51	260,86		4.090,56
Mai	0,00	0,00	0,00	128,33	220,51	138,08	174,19	287,11	279,97	363,69	374,81	373,67	328,97	279,88	269,89	218,44	157,31	236,45	258,33	291,47		4.381,18
Jun	0,00	0,00	0,00	102,74	265,42	141,58	98,91	229,34	260,08	281,76	378,75	381,03	308,96	287,07	267,44	223,51	178,41	254,91	231,63	337,18		4.108,50
Jul	0,00	0,00	0,00	105,07	264,73	163,91	187,73	284,81	352,25	377,86	464,71	384,60	295,89	287,07	267,44	223,51	178,41	254,91	231,63	337,18		4.621,71
Ago	0,00	0,00	0,00	91,86	276,32	197,26	279,47	312,97	354,80	316,92	374,91	392,88	351,34	308,74	259,79	192,60	162,88	259,28	293,18	322,48		4.747,48
Set	0,00	0,00	0,00	169,28	180,18	187,52	252,54	280,12	324,22	318,01	370,59	340,87	274,66	243,01	229,83	190,58	102,81	222,88	241,49	299,82		4.248,19
Out	0,00	0,00	0,00	184,67	154,89	166,52	262,00	288,13	340,96	402,69	375,17	358,54	297,81	288,37	288,75	200,02	166,68	238,13	243,04	373,61		4.811,08
Nov	0,00	0,00	0,00	188,06	114,73	193,35	264,43	251,47	280,87	338,88	342,16	365,77	268,89	271,77	244,31	165,17	171,87	257,31	248,12	359,60		4.294,06
Dez	0,00	0,00	427,38	251,00	298,27	313,17	438,55	400,58	452,12	431,98	445,44	338,35	251,28	248,99	200,59	130,38	147,51	177,05	152,81	188,33		5.302,78
TOTAL	0,00	0,00	427,38	1.722,90	2.278,14	1.892,75	2.257,12	2.795,45	3.586,95	4.076,25	4.358,04	4.208,69	3.873,61	3.381,02	2.993,31	2.388,87	2.024,39	2.673,46	2.796,08	3.828,04	298,39	51.317,14
TONINÊS	0,00	0,00	35,82	143,58	189,85	157,73	188,09	232,89	297,25	339,69	363,17	350,72	306,13	280,09	249,48	199,05	168,70	222,78	233,01	293,84	298,39	4.548,12
TONDIA	0,00	0,00	1,42	5,74	7,59	8,31	7,52	9,32	11,89	13,59	14,53	14,03	12,25	11,20	9,98	7,96	6,75	8,81	9,32	11,75	11,86	181,92
				0,32	(0,17)	0,19	0,24	0,28	0,14	0,07	(0,03)	(0,13)	(0,09)	(0,11)	(0,20)	(0,15)	0,32	0,05	0,26	0,01		0,06

Fluctuation of the general recycling rates and Cambio Verde program rates across time.



Why was this recycling incentive beneficial to Curitiba's recycling rates?

Scatterplot results between Cambio Verde program recycling rates and overall recycling rates in Curitiba from 1989 until 2008



Source: SPSS Lineal regression of the official recycling data records of the Public Cleaning Department of Curitiba, Brazil up to March 2009.

Conceptual Map of mechanisms interconnections needed for waste management and reduction

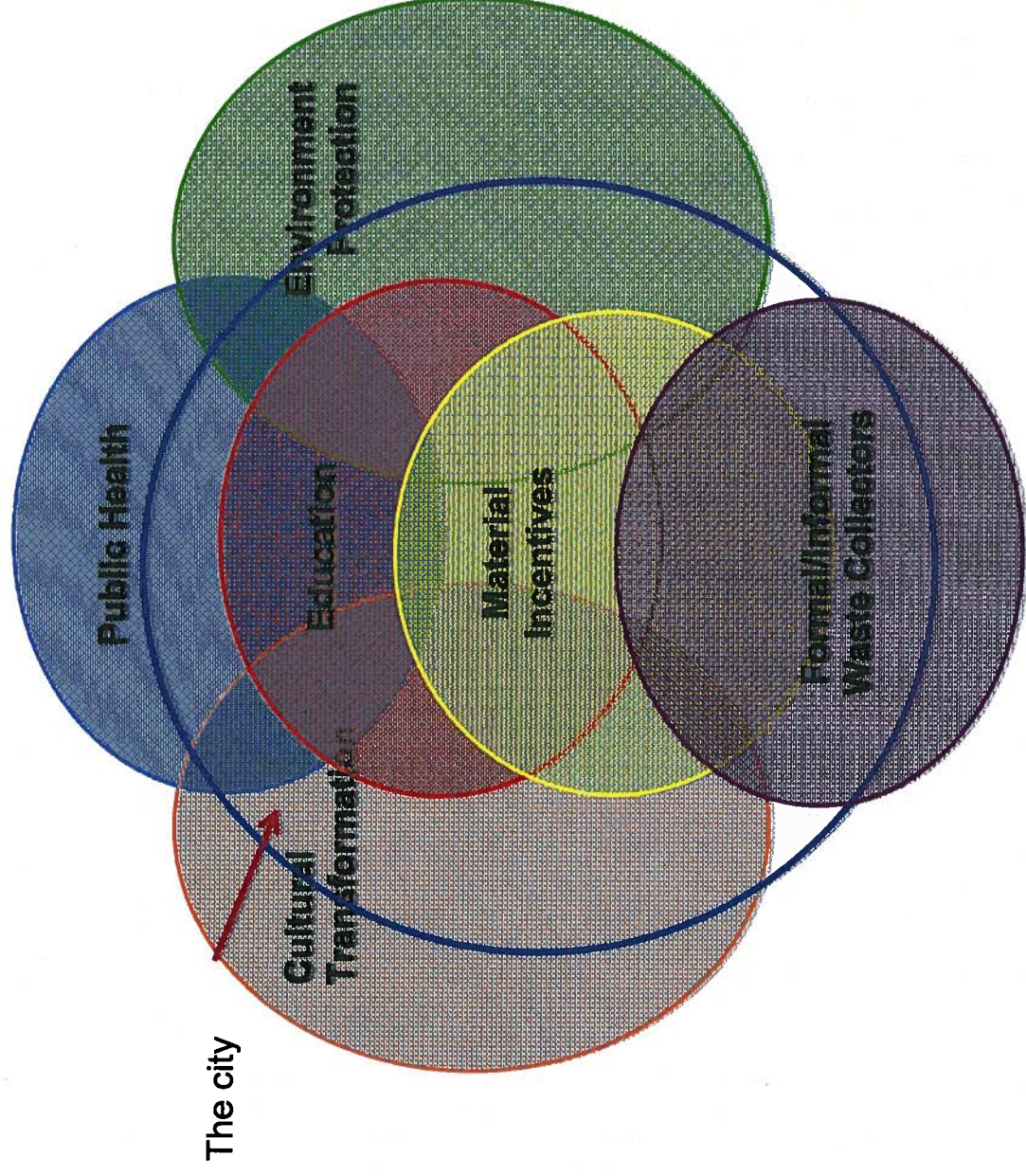


Table 2: Obstacles, Advantages and Implications for Cambio Verde to be replicated			
Factors	Obstacles	Advantages	Implications
 Economic	-Annual budget restrictions -Weak infrastructure -Program finance -Informal Sector Profit	-Stable demand for regional farmers -Poverty alleviation, savings for participant households -Maximization on SWM efficiency -Available funds from international development organizations	-Inter-sectorial coordination among the different departments involved with CV throughout the government and the farmers involved -Investment required for running the program. -Economic gains from the recyclables allocation
 Environmental	-Droughts and floods -Proximity and capability of recycling industries	-Better diets -Cleaner spaces -Health improvement -Reuse of materials -Energy savings -Environmental awareness	-Exhaustive educational and promotional campaign to launch and explain the program at the local level -Citizens gain responsibility through the incentives, feeling encouraged to participate and improve their habits
 Social	-Ignorance, Lack of environmental awareness -Apathy of the population as a whole -Informal sector	-Human capability -Community involvement -Increment in family interactions and common goals -Partnerships and formalization of SWM collectors' potential	-Inclusion and participation -Strategic location of the exchange points in the less favored communities
 Political	-Election times -Lack of interest from policy makers -Partisan inter -Weak rule of law	-Citizens empowerment -Pride for the Municipality -Rule of Law	-Understanding of the environmental needs -Responsibility and will to invest and contribute to sustainability

Benefits

Factors	Advantages
Economic 	• Stable demand for regional farmers “food-mile” concept • Savings for participant households • Maximization on Solid Waste Management efficiency (collection cost including HH and Bulky items, diversion and landfill savings)
Environmental 	• Reuse of materials • Cleaner spaces • Energy savings • Better diets • Health improvement (obesity)
Social 	• Human capability • Community involvement, minorities inclusion • Increment in family interactions and common goals • Partnerships/Solid Waste Management ZERO WASTE GOALS • Job creation
Political 	• Citizens empowerment • Pride for the Municipality • Rule of law

Obstacles

Factors	Challenges
Economic 	• Annual budget restrictions • Program finance • Weak infrastructure • Informal Sector Profit
Environmental 	• Droughts and floods and winter storms • Proximity and capability of recycling industries
Social 	• Ignorance, lack if environmental awareness • Apathy of the population as a whole • Informal sector opposition
Political 	• Election times • Lack of interest from policy makers • Partisan interest • Weak rule of law

Implications

Factors	Ventajas
Economic	• Inter-department coordination among the different departments involved with the program throughout the government and the farmers involved • Investment required for running the program
Environmental	• Exhaustive educational and promotional campaign to launch and explain the program at the local level
Social	• Inclusion and participation • Strategic location of the exchange points in the less favored communities
Political	• Understanding of the environmental needs

Morelia's pilot program results

from July to September 2010

TRUEQUE VERDE

Week	COMMUNITY											
	CAPULA			CUTO			TEREMENDO			ATAPANE		
	Collected Material (kilograms)	Delivered Food (kilograms)	Collected Material (kilograms)	Delivered Food (kilograms)	Collected Material (kilograms)	Delivered Food (kilograms)	Collected Material (kilograms)	Delivered Food (kilograms)	Collected Material (kilograms)	Delivered Food (kilograms)	Collected Material (kilograms)	Delivered Food (kilograms)
1	390.50	97.63	266.50	66.63	611.50	152.88	307.00	76.75	757.50	189.38		
2	445.00	111.25	310.00	77.50	950.50	237.63	472.00	118.00	655.00	163.75		
3	755.00	188.75	492.00	123.00	705.50	176.38	595.00	148.75	893.00	223.25		
4	555.00	138.75	624.00	156.00	518.50	129.63	608.00	152.00	468.00	117.00		
5	1,040.00	260.00	709.00	177.25	716.50	179.13	0.00	0.00	739.00	184.75		
6	1,372.00	343.00	367.00	91.75	1,158.00	289.50	0.00	0.00	1,736.00	434.00		
7	1,476.50	369.13	559.00	139.75	1,072.00	268.00	0.00	0.00	1,848.00	462.00		
8	1,480.00	370.00	589.00	147.25	707.00	176.75	0.00	0.00	1,774.30	443.58		
9	1,993.00	498.25	349.00	87.25	1,160.00	290.00	0.00	0.00	3,303.90	825.98		
10	3,165.00	791.25	1,567.00	391.75	1,982.00	495.50	0.00	0.00	4,159.00	1,039.00		
Total	12,672.00	3,168.00	5,832.50	1,458.13	9,581.50	2,395.38	1,982.00	495.50	16,333.70	4,082.68		

Total de Collected Material

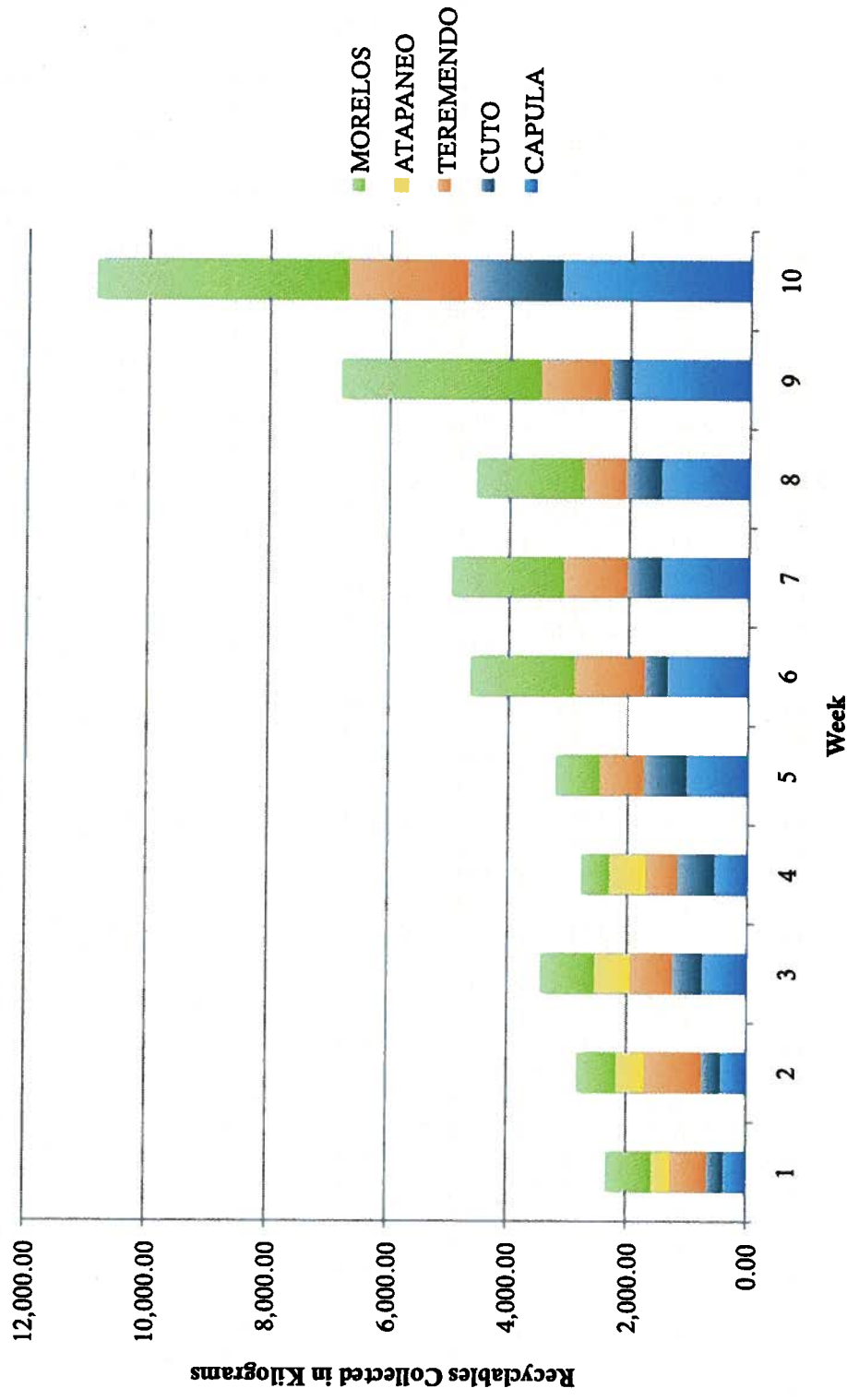
46,401.70

Total de Delivered Food

11,599.68

Morelia's pilot program results

from July to September 2010



Recycling materials potential and indicators within general waste collection



We measured by hand the amount of recycling materials present within the general waste collection before and after the Trueque Verde program in each participant community

What can the SFPB do?

1. Provide **feedback** about the program to us at solurso@gmail.com
2. Help with **contacts for the research assessment** stage to determine Austin's local food capability/cost projection for the pilot.
3. Help with **partnerships with local farmers** to start the pilot.
4. **Support the program** as one of the initiatives to be included in the Zero Waste Master Plan: swsmasterplan@ci.austin.tx.us
5. **Recommend the program to the CoA** if you considered it appropriate,
6. Share, **vote** and comment for this program at speakaustin.org



www.solurso.org

www.truequeverde.blogspot.com

www.speakupaustin.org **[Green Barter / Trueque Verde](#)**

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CAPCOG GRANT PROPOSAL 2010:

Benefits to Austin: Cambio Verde is in line with several of the Regional Solid Waste Management Plan Goals described at the Regional Solid Waste Grants Program of the Capital Area Council of Governments as:

- Goal 2:** Promote public education on integrated solid waste management.
- Goal 3:** Promote community clean up events to provide citizens with an alternative to illegal dumping.
- Goal 5:** Encourage effective and efficient management and operation of recycling services.
- Goal 6:** Explore alternatives to dealing with the disposal of special wastes.
- Goal 7:** Encourage the proper management and disposal of municipal solid waste.
- Goal 11:** Promote incentives for recycling activities and increased recycling participation rates across the region.
- Goal 13:** Increase the CAPCOG regional recycling rate.

Cambio Verde also fits in more than one category for such funding:

- Environmental Local Enforcement (Goal #4)
- Litter and Illegal Dumping Clean-Up and Community Collection Events (Goal #3, 7, 9)
- Source Reduction and Recycling (Goal #5, 6, 8, 10, 11, 13)
- Citizens' Collection Station & "Small" Registered Transfer Stations (Goal #7, 9)
- Educational & Training Projects (Goal #2, and additional Goals depending on scope of project)
- Technical Studies (Goal varies depending on scope of project)