National multi-stakeholder workshop "Towards an Agro-ecological Transition"

Presentation of Aide au Développement Gembloux (ADG)

www.ong-adg.be

ADG experience on promoting agroecology

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30-31 March 2016

ADG Presentation Content

1. What is ADG?
2. Agro-ecology target areas
3. Main AE productions
4. Main AE themes and practices
5. Main results
6. Criteria of technic selection
7. Case study of Bokashi

1. What is ADG?

- Belgian NGO based at Gembloux Agro-bio Tech/ULg
- Active in the agricultural sector in Cambodia since 2001
- Currently implementing AFSA2 program in partnership with the CIRD and FAEC
- AFSA2 started in 2014 and has for objective “to improve food sovereignty of Cambodian small-scale farmers”.

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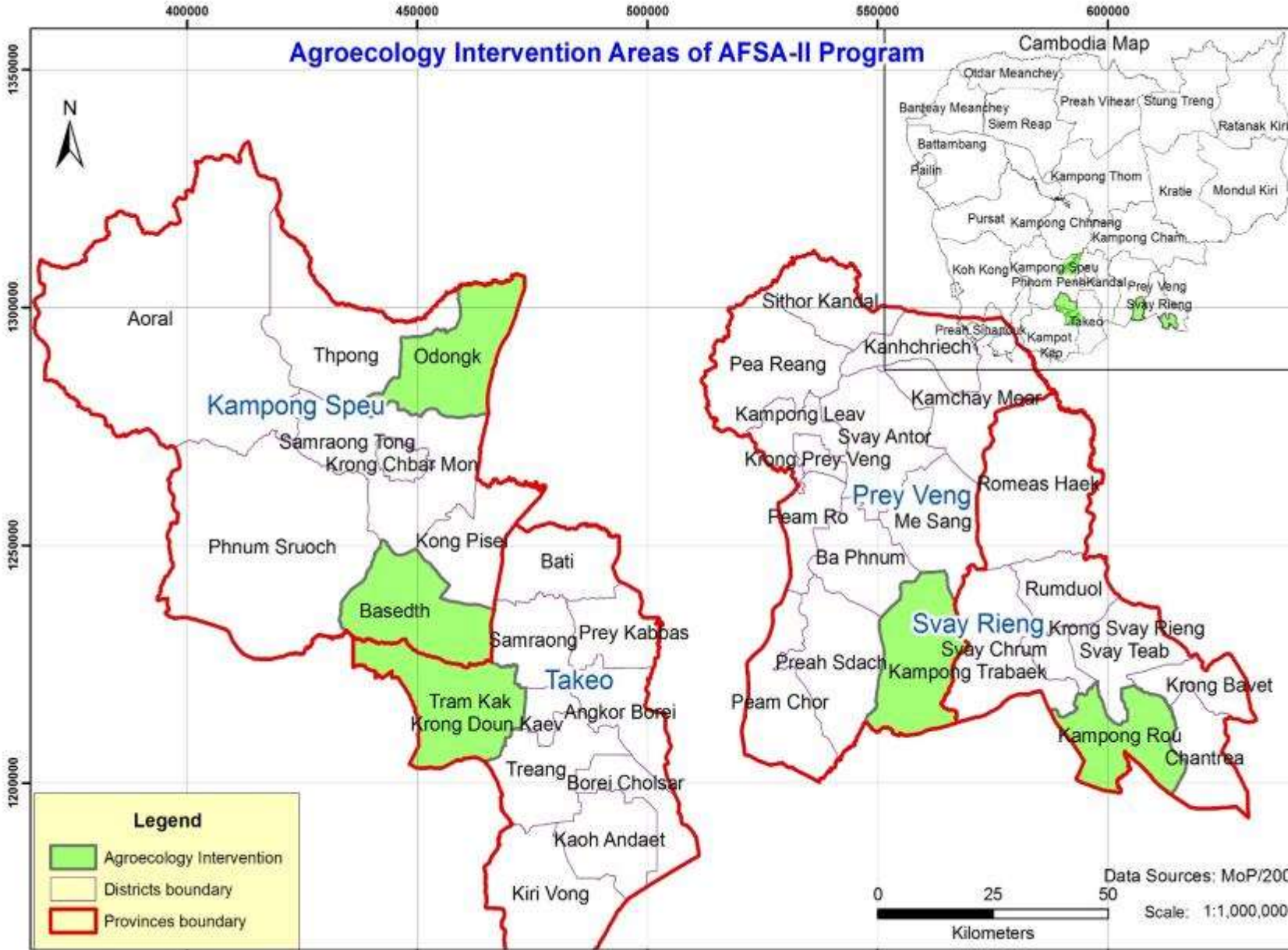
2. Agro-ecology target areas

- 4 Provinces

(Takeo, KPS, Prey Veng, Svay Rieng)

- 5 Districts
- 11 Communes
- 28 Villages
- 11 Agri-Cooperatives



3. Main AE Productions

3.1. Rice seed production and selling (PGS) (Sen Kror Orb, Pkah Romdoul, Smach Krahom

3.2. Direct seeding (Rice Production)

3. Main AE Productions

3.3. Farm-range Chicken production

3. Main AE Productions

3.4. Vegetable production

4. Main AE themes and practices

4.1 Soil fertility Improvement

- Solid compost
- Liquid compost
- Bokashi (Dry compost)

4. Main AE themes and practices

4.1 Soil fertility Improvement

- Cow urine
- Green manure in rice field
- Effective Micro-organism
- Crop rotation and mix cropping pattern

4. Main AE themes and practices

4.2 Pest Management

- Bio-Pesticide (Insects)
- Repellent Herbs
- Cow urine

4. Main AE themes and practices

4.3 **Poultry production improvement**

- Feeding improvement
- Vaccination (Botanical and Biological)
- Bio Extra

5. AE result and adoption

Since 2014…..

- 45 famers adopt at least 3 technics, 18 are women
- 70 farmers adopt 1 or 2 technics, 24 are women

6. Criteria of technic selection

- Easy to implement
- Quite reliable
- Providing quick visible results
- Adapted to farmer / family capacity / resources
- Reproducible (scaling up / multiplication effect)

Bokashi Case Study

Mrs. CHEA Mom
Taso village, Otdom Soriya Commune, Tram Kork District, Takeo province

What is Bokashi fertilizer?

- Natural micro-organism fertilizer made from the reaction of micro-organisms with organic material.
- Fasten breaking down of organic waste.

What is Bokashi fertilizer?

- Discovered or developed by Dr. Teuro Higa, a professor at University of Ryukyus, Okinawa, Japan, around 1982.
- He reported approximately 80 different microorganisms are capable of positively influencing decomposing organic matter, in such a way that it reverts into a ‘life promoting’ process.
- Three groups of microorganisms do exist: ‘positive microorganisms’ (regeneration), ‘negative microorganisms’ (decomposition, degeneration), and ‘opportunist microorganisms’.

Bokashi Fertilizer ingredient

- Animal manure (dry) or Decompose: 500 Kg
- លាមកគោ ឬកាកសំណាល់ឡជីឧស្ម័ន ចំនួន ៥០០ គក
- Bran or Straw: 50 Kg
- កន្ទក់ ឬចំបើងចំនួន ៥០ គក
- Ash or lime: 20 Kg
- ផេះអង្កាម ឬ កំបោកសិកម្មចំនួន១៧ គក
- Molasses (Palm Sugar): 8 Kg
- ស្ករអង្ប៉(ស្ករត្នោត)ចំនួន ៨ គក
- Water 10 L
- ទឹក ១០ ល

Result

Production Cost for Bokachi				Production Cost for Compost		
	Quantity (kg)	Unit/cost	Total	Quantity	Unit/cost	Total
Cow dung	500	$0.05	$25.00	500	$0.05	$25.00
Palm sugar	8	$1.00	$8.00	0		$0.00
Bran or Straw:	50	$0.25	$12.50	50	$0.25	$12.50
Rice husk	20	$0.20	$4.00	0		$0.00
Green leaf	0	$0.00	$0.00	50	$0.03	$1.25
Labor	2	$5.00	$10.00	4	$5.00	$20.00
Total # Kg Bokachi	500		$59.50	500		$58.75
1Kg of fertilizer ($)	1		$0.12			$0.12
1Kg of fertilizer (Riel)			476.00៛			470.00៛

	Bokashi	**Compost**
Duration of production	15 days	90 days
Quantity of fertilizer(kg/m2)	0.5	1.5
Cost of fertilizer (Riel/m2)	238.00៛	705.00៛
Yield (kg/m2)	0.53	0.4
Income (Riel/m2)	1,325.00៛	1,000.00៛

Thank for your attention