

Barriers for PPPs

CGIAR PSC

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PPPs for the benefit of small-holder farmers

- For small-holder farmers in Developing Countries, new crop varieties that are robust and high yielding remain an urgent and also lasting need.
 - Few incentives exist in the private sector to provide such products.
 - The public sector has a mandate to deliver solutions, but often not the full capacity to do so
 - Both aim to reduce poverty and invest in Development

Some basic principles of PPPs

- Public-Private Partnerships (PPPs) are called for when private companies and public organisations **lack the resources or incentives** to fully develop products or exploit their assets independently
- Productive PPPs require the formation of platforms on which to
 - assemble relevant **partners**
 - identify **incentive compatibility**
 - agree on **mutual** objectives
 - assign **roles and responsibilities**
 - protect **IP**
 - partners benefit in a **win-win** situation.

CGIAR reform decisions (AGM08, Maputo)

- “Partnerships are essential for designing research programs and **delivery of research outcomes and impact**.
- Incentives for partnership through the Centers, including funding of partnerships, will be **built into all levels of the System**.
- Processes to **introduce competition**, where appropriate, will also be built into mega-programs.”

- Some PPP experiences, briefly...

Wheat rust Ug99

POSSIBLE MIGRATION ROUTES OF WHEAT RUST Ug99

Based on prevailing winds and areas of wheat production, route A via the Arabian peninsula is considered the more likely route for the continuing advance of the disease



SYNGENTA / CIMMYT

- Identify, characterize and map QTLs to stem rust
- Identify markers for use in marker assisted trait selection
- Characterize the known gene complexes and determine how this interacts with other important genes in wheat

Micronutrient enhancement in staples

Syngenta; Harvest Plus; IFPRI; CIAT; CIMMYT



Golden Cassava



Conventionally bred Provitamin A maize

- Develop markers for selected polymorphisms
- Markers for key genes
- Genotype inbred lines to enable gene discovery
- Sequence for genes in the carotenoid pathways
- Exchange of germplasm
- Develop improved biochemical methods for measuring pro-vit A carotenoids

Sorghum Marker Assisted Selection for DT and Yield

CIRAD; IER; GCP; Syngenta



- Genotyping and identification of markers and QTLs for favourable traits
- Building capacity for molecular breeding of sorghum
 - Linking to BecA
 - MSc studies
 - Expert tuition

Molecular Plant Breeding: A simplistic PPP “enabling matrix”



Chr 0	Chr 1	Chr 2	Chr 3	Chr 4	Chr 5	Chr 6	Chr 7	Chr 8	Chr 9	Chr 10	Chr 11	Chr 12
	TG67	LEOH342	TG114		CT101			TG330	GP39			TG180
		TG608	TG130	SSR296	TG441			SSR63		CT16	TG497	TG68
	SSR105		TG13B	SSR4311	SSR115			SSR38	TG18		LEOH176	
	CT62	CT205					TG183	TG302		SSR34	SSR80	
	SSR192		CT141	SSR43			TG174	CT265		SSR596	TG508	
		TG165	LEOH223	LEOH361	CT193	TG590	CD57	TG349	CT143	CT234	SSR76	CT211
		SSR66					SSR276	CT68				
	SSR316	SSR96	TG483			SSR128	LEOH104	CT92		CT11		TG360
							SSR45	LEOH147		SSR318		SSR20
	SSR134	SSR5	CT82		TG100A		CT52	TG176		CT203		
			SSR111			TG356	TG20	LEOH70	TG291		TG147	
	TG273	CT244		SSR450			SSR286					
	LEOH106	SSR32			CT118	TG365	LEOH221		SSR110			LEOH66
	LEVCOM17	TG26	TG129			TG253	TG342		LEOH144			LEOH30
	CT191	TG469	TG246	CT178		LEOH209	TG499		TG551			
		LEOH113		CT194		LEOH200	LEOH40		CT74	TG403	TG546	LEOH27
		TG645				LEOH112					TG36	CT156
	SSR308		CT85		SSR162				TG421	SSR223		
		TG537			SSR109	CT206				TG63	TG393	CT276
	TG260	LEOH174		CT50						TG233		
		LEOH319		TG500								
		TG154	SSR320									
			LEOH127									
	TG255		SSR601									
				LEOH10								
	SSR65								SSR333			



Looking for complementary strengths

- Incentive compatibility
 - COMMON DRIVERS:
 - Food Security and environmental responsibility is GLOBAL
 - Enabling markets development and free trade
 - Seed Systems and germplasm movement
 - Extension and Knowledge Diffusion

Public vs Private mandate comparison: looking for “win-win”

- Overlapping geographies
 - Growth markets for pvt sector
- Delivering value
 - Reducing poverty = increasing wealth
- Environmental stewardship
- Return on investment
 - = “impact”
 - = profits for all the actors
- Short / medium term focus
- “Donors” = Investors?
- Publication
 - Journals *or* Patents?
- Integrators
 - “puzzles” = open innovation
 - service providers
- Output focused
 - “milestones”

Differences?

- Orphan crops vs Global food crops?
 - Market size
- Research skills vs Development skills
 - Business plan
- Deployment plan vs “make available” or “hand over”
 - Stewardship vs ... (especially for GM)
 - Development of regulatory process
 - Enabling rather than risking Trade
- Sustainable increased production vs Intensification at all costs
 - Sustainable practises... For environment and markets

Are the similarities beginning to cause problems?

- Intellectual Property rights?
- Exploitation and development rights?
- Market / geographical segmentation?
- Exclusivity rights
- Investment models
- Liabilities and Risks

Does the language need to change?

- PPPs or Joint Ventures?
 - JV considers
 - market analysis
 - route to market
 - the value chain
 - profit (and cost) sharing; mutual value
 - shared risk
 - integrated project management
 - culture and processes development

Breaking down the Barriers...

- Intellectual property / Licensing
 - Considering exclusivity, costs, management
 - Liability risks
- Market segmentation
- New models of Financing
 - Overcoming Competition for core funds
 - Retaining business rationale
- Paying for Development costs
 - “Not for Profit” vs “Not for Loss” ??
 - International development funds, National governments, Foundations
 - Guaranteed purchase schemes & Predictability in business planning
 - Investment in future customers
 - Short term pain for long term gain

Our challenge

- How to create “mutual benefit”?
- How to effectively deliver?
- How to share risks and create re-investable capital?
- As partners...: how to present a unified vision of enhanced productivity?

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