# **CROPS4DELTA** Vietnam – Updates

#### 11 December 2024

Robert van Loo, Research Group Leader Breeding for Abiotic Stress Tolerance at WUR Priska Prasetya, Business Developer Plant Sciences Group at WUR Mathijs Peters, Head Breeder Quinoa at Radicle Crops





# Background – SMP CROPS4DELTA

- In Feb 2024, WUR acquired the seed funding for 'Climate Resilient crOPS FOR future-proof mekong DELTA (CROPS4DELTA)' project.
- Objectives: Identify collaboration opportunities in the Mekong Delta on specific topics.
- Focus areas:
  - Breeding novel climate-resilient crops (e.g., quinoa) and improving tolerance in existing crops (e.g., watermelon)
  - Value chain development for climate-resilient crops in the Mekong Delta.
- Rationale: To create business opportunities for farmers and develop climate-resilient agriculture in the Mekong Delta.







Vulnerability and Resilience to Drought and Saltwater Intrusion of Rice Farming Households in the Mekong Delta, Vietnam (M. A. van Aalst, et al., 2023) Mekong Delta case study site and direct impacts measured by the rice yield loss ratio at the a) district and b) commune levels



## Vietnamese high (potential) value crops



Сгор	Stress type	Current economic value	Rating
Rice	Drought/ salinity	High	Sensitive
Watermelon	Drought/ salinity	High*	Sensitive
Chilli	Drought/ salinity	?	Moderately sensitive
Maize	Drought/ humidity	High*	Moderately sensitive
Peanut	Drought/ humidity	Medium	Moderately sensitive
Sweet potato	Drought/ humidity	Medium	Moderately sensitive
Dragon fruit	Drought/ acidity/ salinity	Medium	Moderately tolerant
Pomelo	Drought/ salinity	High	Moderately tolerant
Pumpkin	Drought/ salinity	?	Moderately tolerant
Coconut	Salinity	Medium	Tolerant
Quinoa	Drought/ salinity	?	Tolerant
Sugarcane	Drought/ acidity/ salinity	Medium	Tolerant
Chilli Maize Peanut Sweet potato Dragon fruit Dragon fruit Pomelo Pumpkin Coconut Quinoa Sugarcane	Drought/ salinity Drought/ humidity Drought/ humidity Drought/ humidity Drought/ acidity/ salinity Drought/ salinity Drought/ salinity Salinity Drought/ salinity Drought/ salinity	? High* Medium Medium High ? Medium ? Medium ? Medium	Moderately sensitive Moderately sensitive Moderately sensitive Moderately sensitive Moderately tolerant Moderately tolerant Tolerant Tolerant

Blom-Zandstra et al., 2017; Verhagen et al., 2017; Niu et al., 2022; van Halsema and Seijger, 2023

## Visit to Vietnam 24-28 June 2024 I

No.	Organisations	Contact persons
Α.	Companies	
1.	East West Seed Vietnam	Van Le Thi Huong, Product Developer
2.	Rijk Zwaan Vietnam	Nien van Dang, Managing Director
3.	Radicle Crops	Viviana Jaramillo, R&D Manager
4.	The Water Agency	Gregor van Essen, Director
5.	Kim Delta	Steven Starmans, Director
6.	MimosaTEK	Tri Nguyen, CEO



## Visit to Vietnam 24-28 June 2024 II

#### No. Organisations

#### **B.** Governments & farmers group

- 1. Department of Agriculture and Rural Development Vietnam (DARD)
- 2. Ministry of Industry and Trade Vietnam (MOIT)
- 3. A group of champion farmers
- 4. Farmer's union
- 5. Cooperatives department
- 6. Women's union



# Visit to Vietnam 24-28 June 2024 III

No.	Organisations	Contact persons
С.	Knowledge institutions	
1.	Tra Vinh University	Bica Tran, Vice Director of Institute of Environmental Science and Technology
2.	Vietnam National University of Agriculture	Nguyen Viet Long, Deputy General Director
3.	Agriculture Genetics Institute	Nguyen Anh, Deputy Head of Science and International Cooperation
4.	Ho Chi Minh University	Nguyen Chau Nien, Head of Department
5.	Can Tho University	Vice Dean



# Key learning points - Opportunities

1. The interest is there. Everyone recognises the problems and the opportunities.

**2.** Opportunities were identified such as:

1. Invitation for joint acquisition of Salt Lab Phase 3

- 2. Dutch funding instruments: Impact Cluster (RVO), P4G Partnership (DGIS), training courses (NUFFIC).
- 3. Joint acquisition with Vietnamese knowledge institutions targeting various funders (public & private)



# Key learning points - Challenges

**1**.Lack of ownership: There is a lack of 'ownership' to push things.

**2.Small-scale projects**: Dutch partners are eager to develop larger programmes, but the question remains: *How do we proceed?* 

### **3.**Too early?

- 1. Companies and farmers still find it to risky to move to alternative climate-resilient crops.
- 2. Market access problems for new crops.

 4.Mekong Delta will get saline land in 2050. By then we need salttolerant crops. How to start early? Difficult business case today.
 Public investment from Vietnam.Business case for the future.

# Opportunities after the SMP CROPS4DELTA

Organisations	A	ction points	Timeline
Vietnamese knowledge institutions (e.g., AGI, VNUA)	-	Finalise and refine the draft concept note with input from the Vietnamese partners Identify and approach potential private and public funding instruments (Vietnam and the Netherlands)	Feb 2025
Salt Lab Consortium	-	Joint funding proposal for Phase 3	Mar 2025
Dutch government agencies	-	Explore funding mechanisms and eligibility criteria for Impact Cluster and P4G partnership	May 2025
Private sector (e.g., VinFast, Dutch breeding companies)	-	Follow-up meetings to evaluate the potential for funding in value chain development for salt-resilient crops	Mar 2025
Development banks	-	Continue the conversation for a larger-scale programme with the development banks	Ongoing



# Thank you for your attention!

Explore <u>www.wur.nl</u>! Got questions? Reach out to us!

1. **Robert van Loo**, Research Group Leader Breeding for Abiotic Stress Tolerance (<u>robert.vanloo@wur.nl</u>)

2. **Priska Prasetya**, Business Developer Plant Sciences Group (<u>priska.prasetya@wur.nl</u>)





