

Exploring the cultural acceptability and sustainability of biofortification in Pakistan

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The BiZiFED project

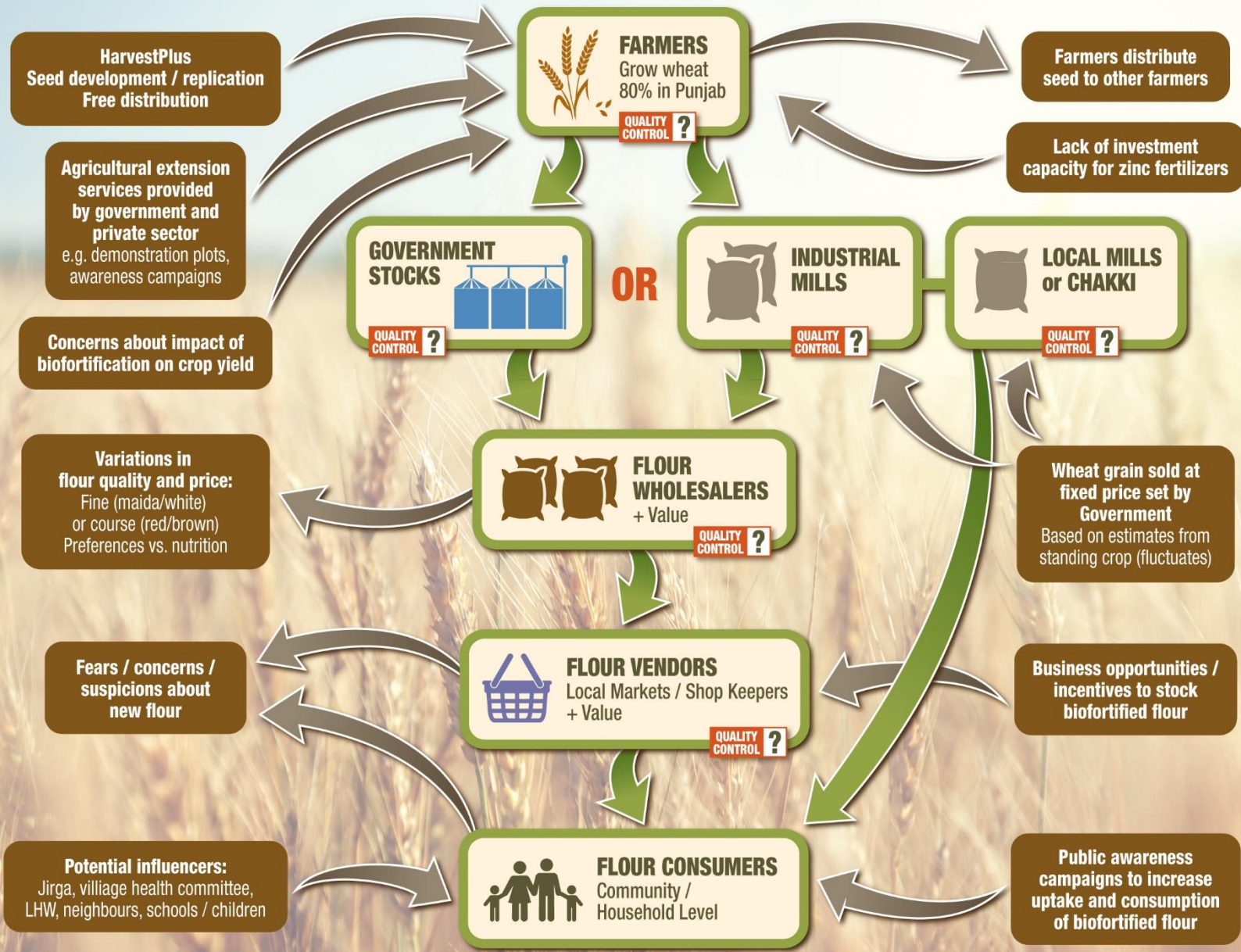
- Biofortified Zinc Flour to Eliminate Deficiency
- Biotechnology and Biological Sciences Research Council (BBSRC)
- Global Challenges Research Fund (GCRF)
- PI Professor Nicola Lowe
- May 2017 to April 2019





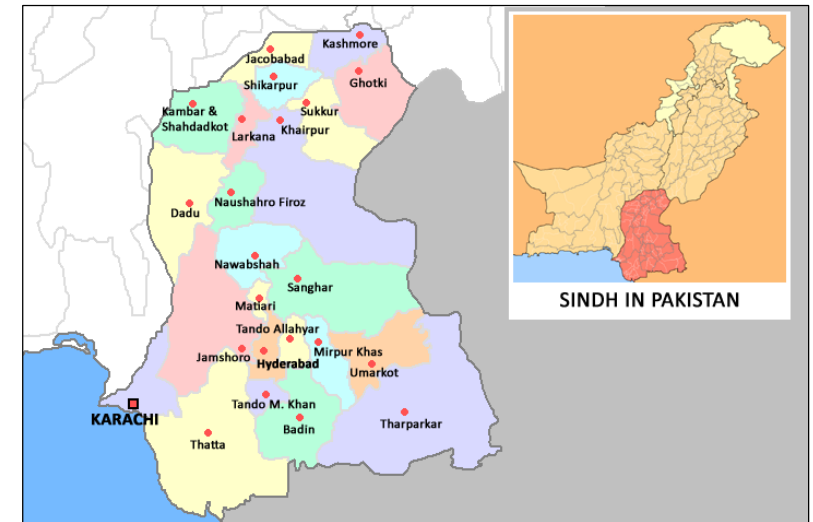
Objective 3

- Explore the cultural context, traditions, knowledge and attitudes of local stakeholders to genetic biofortification and the use of zinc-enriched fertilizers to enhance dietary zinc intake and increase crop yield.
- Impact is contingent upon uptake of biofortified wheat!
- First study to explore the cultural acceptability and sustainability of biofortification in Pakistan



Farmer survey

- Questionnaire survey (n=66)
- Sindh Province
- Farmers who had grown Zincol in 2017-18
- Convenience sample
- Awareness / experiences / satisfaction
- Descriptive analysis



Community interviews

- Semi-structured interviews (n=10)
- Khyber Pakhtunkhwa Province
- Random sample of households from RCT
- 5 male / 5 female
- Experiences / preferences / perceptions
- Thematic analysis



Theme 1 – Preferred new flour

“... this flour it kneads very nicely and makes a very nice bread which is better than the bread from the market flour. When we eat parita in the morning it makes a very good sound and it tastes very nice.” (Female)

“The children used to love it and all the times they used to have bread in their hand and it had a very special, sweet taste and the children used to eat it with a great interest.” (Male)

Theme 2 – Perceived health benefits

“... it has completed a lot of deficiencies in our body, it has improved our strength and there are a lot of children who have different kind of diseases they used to be very pale and their appetite has improved with it” (Male)

“... it was good for our digestion all of us the children, the adults, the flour that we used to use before this it was not good but with this flour the digestion of the children and the adults all are very good.” (Female)

Theme 3 – Affordability

“We would try because it is good flour. It does not leave any bad impact on one’s health. But it is the matter of affordability. Everybody looks at his affordability.” (Female)

“... we will definitely try to buy this flour because it has benefited our body and if it will save us money on the medicine and even if this is twenty rupees more expensive we will buy it.” (Male)

Theme 4 – Suspicions

“... people used to say it is for birth control, it does this and it does that and there was some fear in our hearts as well but now we don't have that fear and if this flour becomes available in our village we will buy it with great confidence.” (Male)

“Initially people used to say that don't eat this flour but later on they all preferred it and like it.” (Female)

Conclusions

- Biofortified flour could be popular with consumers – depends on affordability and awareness
- Limitations of this study:
 - Small sample
 - RCT participants only – free flour!
- BIZIFED2 will further examine the socio-cultural factors and market systems that affect the sustainable uptake of biofortified wheat.

Collaborators & partners

- University of Central Lancashire
 - Professor Nicola Lowe
 - Dr Heather Ohly
- University of Nottingham
 - Professor Martin Broadley
- London School of Hygiene & Tropical Medicine
 - Dr Edward Joy
- Khyber Medical University
 - Dr Jaffar Khan
- Abaseen Foundation
 - Professor Mukhtiar Zaman
- Fauji Fertilizer Company
 - Dr Munir Zia

