ກົນໄກເພີ່ມພູນຜະລິດຜົນຕິດພັນກັບການຜະລິດເມັດພັນເຂົ້າ ເພື່ອຄວາມ ຍືນຍິງທາງດ້ານງົບປະມານ, ຄຸນນະພາບ ແລະ ປະລິມານເມັດພັນເຂົ້າ Mechanisms for rice seed production to ensure financial sustainability, quality and quantity

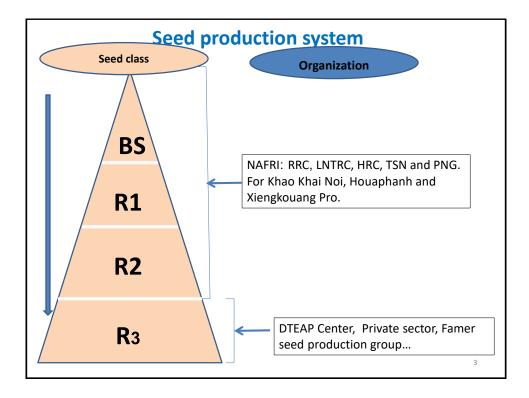
ປອ. ຈັນທະຄອນ ບິວລະພັນ Chanthakhone Boualaphanh (PhD) ສຸນຄົ້ນຄວ້າເຂົ້າ, ສະຖາບັນຄົ້ນຄວ້າກະສິກຳ, ປ່າໄມ້ ແລະ ພັດທະນາຊີນນະບິດ Rice Research Center, NAFRI

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# **Rationale**

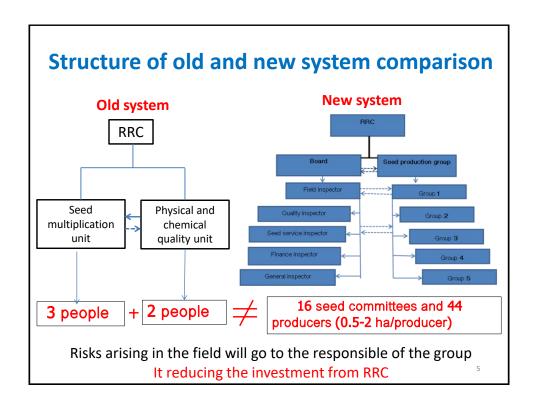
- > Rice is a staple food for Lao people
- In Laos, rice production is focused for food security and commercialization
- Seed is key factor for increase rice productivity, using good seed can increase rice productivity up to 30%
- > For commercialization, it is necessary to use R3 or good seed

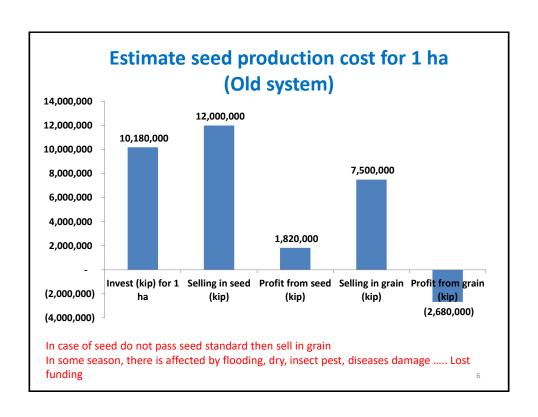
2



# Problems and risks for rice seed production

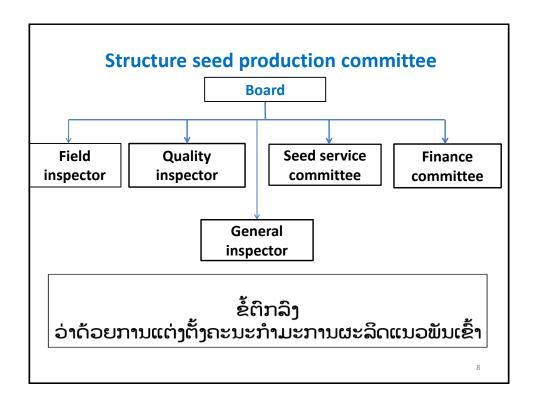
- Low seed quality and quantity due to limitation of in charge persons, management and inspector (100% management by seed multiplication unit (Few people are responsibility for large area)
- No sustainable use of budget for seed production budget
- So new mechanisms for rice seed production is developed: Seed group as cooperative, Work in groups but individuals person or household (groups) responsibilities

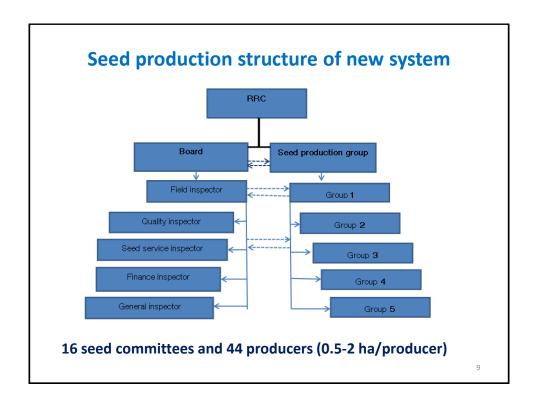




# Objective to establish new system in seed production

- 1. To reduces the risk of seed production investment in field management —> To secure sustainable of budget seed production
- 2. Increase quality and quantitates seed production
- 3. Income generate for both RRC and seed producers
  - > Establish seed production group (RRC staffs and farmers)
  - Establish seed production committee





### **Implementation**

- Producers are responsible for all techniques relative to seed production (follow the contract)
- Committees control seed quality of whole seed production system
- RRC purchase after passing seed quality
- RRC do processing, packing, marketing



#### **Implementation**

#### **Contact between RRC** and producer

RRC provide seed, paddy field ... and technical training related seed production





ຮ່າງສັນຍາ ວ່າດ້ວຍການຜະລິດແນວພັນເຂົ້າ R1, R2 ລະຫວ່າາ ສູນຄົ້ນຄວ້າເຂົ້າ ເອີ້ນວ່າຝ່າຍ (ກ) ແລະ ກຸ່ມຜະລິດ ແນວພັນຂອາສນເອີ້ນວ່າຝ່າຍ (ຂ)



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# **Key rules in the contract**

- 1. Producers must strictly follow the seed production techniques in accordance with the technical guidelines in each step and ensure the quantity and quality of the seeds in accordance with the standards.
- 2. Producers are responsible for all investments, such as, soil improvement, weeding, Irrigation canal cleaning, soil preparation (plowing, harrowing), hand-planting, handharvesting, and so on.
- 3. Producers who do not pass seed standard for 2 consecutive seasons will not be allowed to continue produce
- 4. Producers produce R1 seed that do not pass the standard will be fined 500,000 kip per block (1/4 ha)

# **Key quality standards**

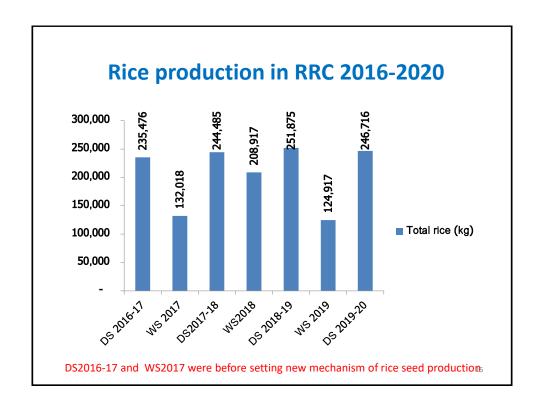
- Producers must strictly follow the seed production techniques in accordance with the technical guidelines in each step and ensure the quantity and quality of the seeds in accordance with the standards.

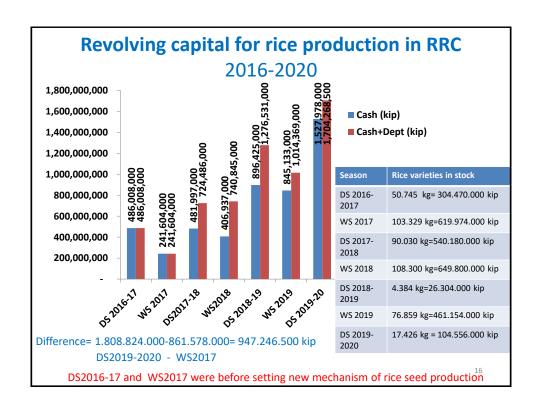
Standard details	ເມັດພັນ ບໍລິສຸດ Breeder seed	ເມັດພັນ ພື້ນຖານ Foundation seed (R1)	ເມັດພັນ ລົງທະບຽນ Registration seed (R2)	ເມັດພັນ ຍັ້ງຢືນ Certified seed (R3?
Purity (minimum %)	98	98	98	97
Germination (minimum %)	80	80	80	80
Moisture content (maximum %)	12	12	12	12
Foreign mater (maximum %)	2	2	2	3
Other rice seed per 500 g (maximum)	0	2	5	10
Weed seed (maximum %)	0	0	0.05	0.10
Red rice per 500 g (maxumum)	0	0	1	2

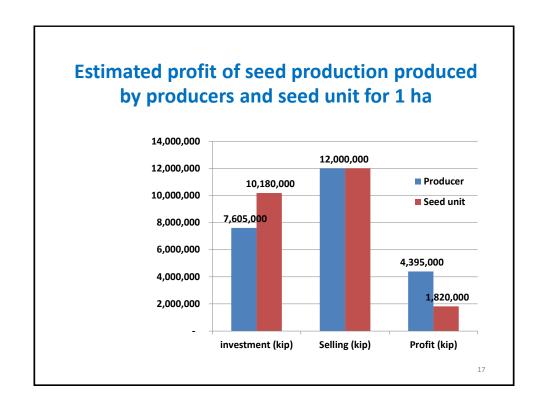
Results from using new system

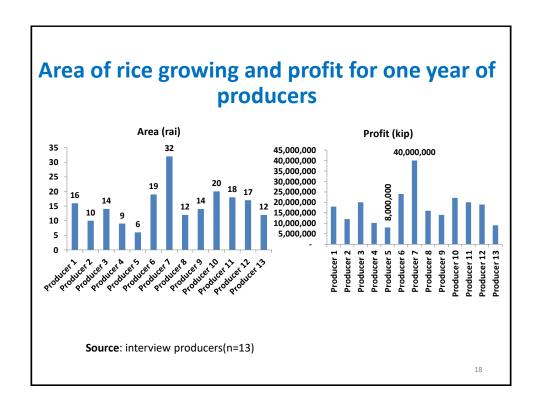
- 1. Seed production system in RRC is improved, resulting seed produce by RRC has high quality and increase quantity
- 2. Seed marketing is increased, resulting increase income both for RRC and producer compare to the beginning to create a group.
- 3. Although the quantity of seeds does not increase much, but the money increases because we have quality sold out.
- 4. Importantly, money does not pay for labor to manage field, because we buy rice seed from groups to grade, pack and sell
- 5. In 2020, fund is increased about 900 million compare to WS 2017 and producer can get profit 8-40 millions/year.

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### **Conclusion**

- From implementation of new system for rice seed production, resulting:
  - New mechanism, producer respond 100% for investment to produce seed.
  - Improving seed production system and sustainable
  - Reduce risk in field investment by government
  - This system is supporting MAF policy on sustainable use of seed production funding

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# **Propose and suggestion**

- Improve rice seed committee
  - Coordination between institute, departments, provincial....
  - Seed booking system
- Setting of rice committee
- Suggest to other center of NAFRI or DTEAP use this new mechanism in their center

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