

Feedback from the crash test session on the Alaotra Wetland Game (AlaReLa Madagascar project)

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Synopsis

The wetland game aims to test the players' livelihood strategies. It is a complex land use game with several resources (common pools) and multiple choice decision making and a variety of interactions. Each player represents a household that can pursue a variety of land-based activities and invest into different livelihood activities. Some activities have a direct impact on land type, e.g., by converting marshland or grassland to agricultural land. Examples of such activities are farming for rice, onions, or for other vegetables. Land based activities without an impact on land type are for example fishing (on the lake), hunting (in the fringing marshes), or zebu herding in the adjacent agricultural belt or in the surrounding grasslands. A game lasts five rounds. The goal of each player is to increase his / her well-being. Two scenarios are scheduled to be tested during a game workshop with stakeholders: Scenario 1 represents business as usual, where land is scarce and only limited activities are possible in the agricultural belt; hence, players will have to move into other land types to earn a living, or invest actions into non-land based change activities (fishing, herding). This scenario should first allow the players to get acquainted with the game, and test their strategic behavior (e.g., conservationist versus opportunist) or assessing the importance of quality of life parameters. Scenario 2 tests the behavior of players under circumstances of surprise. These include already 'system intrinsic' disturbances such as fires in the grasslands, or climatic events such as cyclones or droughts, and 'what if' scenarios where potential large scale rice or onion pests are impacting the production outcome. Here the aim is to assess the resilience of players to shocks and change.

A market place will allow the players to interact more actively [the lack thereof was a main critique during the crash testing session]. The market represents a social institution where each player at the beginning of a round can invest money into four land based activities, but also purchase 'quality of life' activities (e.g., schooling, electricity, health, and poultry). Each purchase entails a token and corresponding sticker. The first will be placed on the landscape table board (in case of land type based activity), and the latter will be placed in front of a players' personal game board. The stickers are to be tucked onto the personal board. The board is a reporting tool for the game master who will calculate the win for each activity and hand out the cash in form of game money. For increased transparency and understanding, the win of each activity will be noted beside each sticker. A game round, displayed as a 'time/game clock' on a poster during the duration of the workshop, consists of visiting (a) the market, which is represented by a game master: purchase of activities = household decisions; (b) the landscape and filling out of personal game board = cumulative decisions at the landscape become visible to every player; (c) the bank, represented by another game master, for cashing the win = cost and benefit analysis; this allows the players to decide on their strategies to pursue in the next round.

During a land type based activity, farming in marshland or grassland results in the conversion to agricultural land (depicted as yellow squares on the landscape table board). The player puts his/her token onto the 'landscape table board' and removes the original 'land type square' by putting it onto

a 'table of change' where all players can see the evolution of land change: on the landscape table board the yellow area (representing the agricultural land) is growing while on the table of change the green (marshland) and / or orange (grassland) squares are accumulating. A household that is increasing its well-being successfully can also hire other villagers (players) to work for them = increasing the number of land based activities (taking away the investment risk from weaker players, but also dictating the share; this is up to bilateral agreements between two players which can happen during the time on the market).

The well-being is represented not only through win in cash by pursuing land based activities, but also through the accumulation of 'quality of life' tokens. Another well-being indicator is the 'livelihood status' represented by the type of house: low, middle, or high class house. All players start with a house at the lowest level. During the game they can either keep the status or increase it; this requires a round-based payment according to the house. A 'personal happiness table' will be filled out by the players to show their satisfaction of achievements during the course of the game. After five rounds each household must be above a certain cash-threshold to survive; here there is room for collaboration to emerge.

Other feedback during the crash test session has been addressed as follows: Zebus = herding can be done each round; zebus (the tokens and stickers) can be purchased on the market during each round of the game. Zebus are an indicator of social status and not for sell, unless there is an emergency (dire need of cash); for this, a ticket can be drawn from the 'zebu bank' provided by the game masters, to see whether a player is allowed to sell his / her zebu on the market. In between two rounds, community meetings can be held to collectively discuss aspects of the game as they arise. Aspects such as nutrient or pesticide leaching, as well as erosion are assumed to happen in the background = continuous processes; hence, they will not be factored into the game. Social relationships as well as the different farming types will be simplified into 'households'; during the game, social and power relations can emerge as the game is evolving.

The Alaotra wetland game is designed for five players at the time, and will be accompanied by at least three researchers / game masters (still to be tested). The game represents a closed game with limited solution space (versus open games with unlimited solution space) to ease reproduction and analyses. Next steps in the game development entail the calibration of the pricing in order to avoid too little investment costs coupled with too high wins. By putting the players into situations of scarcity it is hoped to assess change behavior. Pilot sessions will be held in July in Antananarivo and the Alaotra itself, with various types of stakeholders (e.g., NGOs, academics, farmers, ...) before envisioning larger scale workshops in the Alaotra (mainly with fishermen and farmers). This table top role playing game is only a first step in fostering resilience in the region, and will include at later stage also decision and policy makers.