# MEATBALL BIRYANI

#### **ABOUT THE DISH**

Biryani is an Urdu word that hints at the dish's Muslim origins. The word biryani is believed to originate from two possible origins—the Persian words for rice, 'birinj', and to fry or roast, 'biryan'. In parts of East India, Islam is the largest minority culture and biryani is a common dish in those regions, with adaptations throughout India. Today, it is a popular dish enjoyed the world over.

# INNOVATIVE CROPPING SYSTEMS ON THE EAST INDIA PLATEAU

The East India Plateau comprises much of the state of Jharkhand and parts of adjoining West Bengal, Bihar and Odisha. The East India Plateau is characterised by endemic poverty, food insecurity, comparatively low agricultural productivity, lack of irrigation infrastructure and civil unrest.

Rice is the staple food crop, and traditional cropping systems are characterised by monocrop rice production that experiences high climate-related risk and is particularly vulnerable to subtle changes in rainfall distribution. Cropping outside the rainy season is limited by the lack of irrigation resources, which are generally restricted to wealthier farmers, and uncontrolled grazing by village cattle and goats.

Population pressure has pushed rice cultivation on to the medium uplands, which are less favourable for rice. Previous ACIAR research has shown that the cropping system of monoculture paddy rice is poorly adapted to terraced uplands, largely explaining why regional rice yields have remained stubbornly low. Poor farmers have little, if any, of the lowlands where rice has traditionally been grown.

#### THE PROJECT

Between October 2012 and December 2016, the project brought together the University of Western Sydney, the NGO Professional Assistance for Development Action (PRADAN), the Indian Council for Agricultural Research—in particular the Central Rain-fed Upland Rice Research Station and the Research Complex for Eastern Region—the World Vegetable Centre (India) and the Advanced Centre for Water Resources Development and Management.

This project, jointly funded by the Department of Foreign Affairs and Trade, will embed on-farm agricultural research within a rural development project. The project has trialled improved rice management methods via direct seeded rice (DSR) and has tested the potential for a biannual crop and diversified incomes from a range of alternative cash crops.

A smartphone app, ClimAnalyser, was developed from research conducted in the previous project. Users have suggested the app continue to be developed and for future versions to include groundwater and crop water use requirements.

Self-help groups are a key project ingredient, providing a supportive environment for individual and group learning. The learning process is not a cheap or quick scaling-out process, but the development in human capacity appears profound. Examples of enhanced empowerment include women taking leadership roles in their communities, speaking confidently in public, having input into allocation of productive resources (land, irrigation, labour) and managing income from on-farm enterprises.

Surveys of female participants in self-help groups indicate positive effects on several components of the Women's Empowerment in Agriculture Index, including community leadership, input into agricultural production decision-making and control over use of income.

# ACIAR PROJECT LWR/2010/082

Improving livelihoods with innovative cropping systems on the East India Plateau.

### MORE INFORMATION

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# Meatball Biryani

## Ingredients

500 g basmati rice

- 1 kg lamb/beef/chicken mince
- 3 large onions, finely chopped
- 4 tbsp garlic paste
- 2 tbsp ginger paste
- 1 tbsp garam masala
- 2 tbsp tomato puree
- 1/2 cup coriander leaves, finely chopped
- 4 large tomatoes, cubed
- 2 tsp coriander powder
- 1 tsp cumin powder
- 1/2 tsp turmeric powder
- 1 tsp chilli powder (optional)
- 5 tbsp cooking oil
- salt to taste

#### Garnish

- 1 large onion, finely sliced
- 1/2 tsp saffron strands
- 3 tbsp warm milk
- 3 tbsp chopped coriander leaves

#### Method

- 1. Wash rice and soak in water for 30 minutes. Cook rice until almost done. Drain remaining water (if any) and put aside.
- 2. Mix minced lamb/beef/chicken, two chopped onions, 2 tbsp garlic paste, 1 tbsp ginger paste, garam masala, tomato puree and coriander leaves in a large bowl. Form the mixture into equal-sized balls and keep on a plate.
- **3.** Heat oil in a pan and fry sliced onion until crispy and golden. When done, drain and remove from oil and keep aside on paper towels to garnish biryani.
- 4. In the same oil, add the remaining (finely chopped) onion. Fry until light brown, then add remaining ginger and garlic pastes. Fry for a minute. Add all the spices and fry for 2 to 3 minutes.
- 5. Add tomatoes and mix well. Fry the masala until the oil begins to separate from it. Add 1 cup of warm water to masala and season with salt to taste. Gently add the meatballs. Do not stir for at least the next 5 minutes. Then stir gently so as not to break the meatballs.
- 6. Cook uncovered until meatballs are done. There should not be more than 1½ cups of gravy left at the end of this stage.
- 7. Soak saffron strands in warm milk.
- 8. Take a large, deep baking dish/ovenproof dish (it MUST have its own cover) and grease lightly with cooking oil.

  Layer rice and meatballs as follows: rice—meatballs—rice.

  End with a layer of rice. Pour saffron-infused milk over last layer of rice.
- **9.** Garnish with crispy fried onions and chopped coriander leaves. Cover dish and seal tightly. Bake in a hot oven for 30 minutes. Serve with mango chutney.

Serves 6