The Global Forum on Agricultural Research (GFAR) brings together all those working to strengthen and transform agricultural research for development around the world. As part of this role, GFAR is working with New Agriculturist to showcase and raise awareness of important initiatives and their outcomes, to update and inspire others.

**Seeking harmony in Indonesia**

In 1997 over 180,000 hectares of the Central Moluccas Regency, on the Indonesian island of Seram, was designated for conservation through the creation of the Manusela National Park. Ten years later, private companies began to cultivate oil palm on areas of grasslands and swamp forests on the north coast and displace traditional use of land, including some cash crops. Diverging demands of local livelihoods, conservation objectives and economic development, combined with issues of land boundaries, use and access, and forest resource ownership, resulted in conflict in some cases.

Across Indonesia, the lack of clear land tenure and land rights for local communities is an important issue for land use planning. To help planners and policymakers balance the needs of agricultural development and nature conservation and provide various options for the island's future, the Collaborative Land-Use Planning Project (CoLUPSIA) used a foresight tool - Participatory Prospective Analysis (PPA). PPA is a collaborative process that involves all of the stakeholders - including local government, legislative authorities, universities, NGOs, customary leaders and private companies - to identify variables related to land-use planning. The variables have been used to outline four land-use planning scenarios, each representing a possible future.

**Building a shared vision**

"The lands in Maluku traditionally belong to us and are a heritage from the ancestors," says Mr Lailossa, a village leader. "What we want is clear regulation on our lands." The public consultations have revealed that scenario one - in which the Government fully involves communities in the planning, implementation, monitoring and evaluation of land and forest management, and the customary system is acknowledged and accommodated - was the most desirable.
In contrast, the present land use situation - and an undesirable future - was described by a combination of scenarios two and three, where a top-down approach to land use planning is implemented and land rights of communities are uncertain or ignored.

Use of the PPA has enabled the stakeholders to develop a shared vision and has also changed the attitudes of bureaucrats about local people's capacities and potential to contribute to land use planning. "By increasing the participation and integration capacity of all stakeholders, they are able to contribute more effectively to a better foresight for the future development, use and management of their land," says Mr. M.A.S Kelian, Director of Business Development in Seram. The local government has expressed its intention to continue using the PPA process and include scenario one in the Regency's midterm planning. CoLUPSIA is now drawing up new maps detailing land categories, in order to help with policy development and to deal with social issues such as land boundaries, ownership, and access to forest resources.

CoLUPSIA has since undertaken a second PPA in Kapuas Hulu district in West Kalimantan Province, the Indonesian part of the island of Borneo. Here similar issues exist, with oil palm plantations expanding in an area that is also home to two national parks and a large area of forest designated for conservation. "We want development," explains Mr Luther, a customary leader, "but it should benefit us local and indigenous people."

Power relations and land rights

In Kapuas Hulu, power gaps between stakeholders and the presence of sensitive issues hindered participation in the PPA process. Palm oil development, for example, was a sensitive issue for government officers and it was especially difficult for them to be challenged about it in a public environment. The process also revealed that while customary law is important to enforce social norms, when it comes to land appropriation by large-scale investment, customary institutions are unable to secure land rights. As a result, communities that are unwilling to surrender their land for oil palm have little power to defend their rights.

"Using scenarios to explore the development agenda in Kapuas Hulu by 2030 has awakened the public to the need for actions to be taken to achieve the desired future - actions including revising land use planning to favour sustainable development, recognising customary rights over land, and mobilising strong commitment from all stakeholders," said Mr Baco Maiwa, a District Parliament Member. "Such actions would bridge conflicting interests over natural resource management at the district level."

The project is now developing land-use maps to provide integrated information, including land tenure and rights, to improve the decision-making process in Kapuas Hulu. "Capacity building for local government is needed for local officials to be able to decide what goods are needed for development, while at the same time protecting the environment," concludes Mr Suparman, Head of the District Planning Agency.