

# Supporting the sustainability of rural areas by agro-touristic programs: transferring Austrian experience to Indonesia

Meinhard Breiling  
Vienna University of Technology  
Technology. Tourism. Landscape (TTL) Inter-faculty Cooperation Centre  
e-mail: [meinhard.breiling@tuwien.ac.at](mailto:meinhard.breiling@tuwien.ac.at)

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*Abstract: The article informs on the multifaceted relationship of agriculture and tourism in rural areas. It proposes a much stronger involvement of stakeholders in agriculture to contribute to agro-tourism policies for the future wellbeing of rural areas and their residents. We inform in five sections on i) global, ASEAN region and Indonesian tourism development, ii) data with regard to the comparability between Indonesia and Austria including an assessment of sustainability concerning agriculture and tourism, iii) a description of rural tourism in Austria, iv) exemplifying food pleasure region as an important part of rural tourism with close interactions of the agricultural and tourism sector and v) conclusions with recommendations on how to take best use of the Austrian experience in Indonesia considering international trends and the necessity of the agricultural sector to become more active in overtaking the lead in agro-tourism strategies.*

Key words: tourism development, agriculture, rural tourism, food pleasure tourist destinations

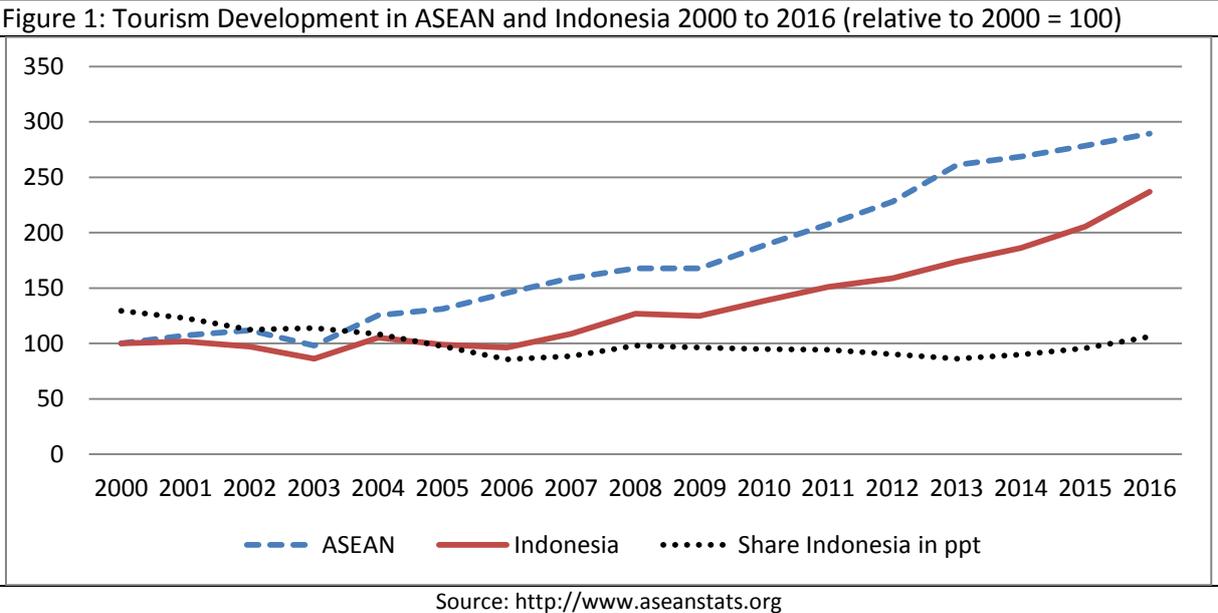
## 1. Introduction

Tourism is a relatively young and dynamic economic sector. Since 1950, global tourism has grown steadily. While this growth was initially observed in Europe and in North America, its future growth is expected primarily in Asia and in countries that have the largest economic growth rates and higher disposable incomes. e. International tourist arrivals have increased from 25 million globally in 1950 to 278 million in 1980, 674 million in 2000, and 1,235 million in 2016 (UNWTO 2017). The contribution of tourism to the global economy in 2016 is US\$ 2.3 trillion or 3.1 percent directly and US\$ 7.6 trillion or 10.2 percent of global gross domestic product including benefits in other sectors (WTCC 2017). Thereof are US\$1.4 trillion in foreign earnings or 6.6 percent of all global exports or almost 30 percent of all global service exports, 7 percent less than the maximum of US\$ 1.5 trillion in 2014 (WTO 2017). Some 500 million jobs or 10percent of global jobs are due to tourism (UNWTO 2017). The United Nations has designated 2017 the International Year of Sustainable Tourism for Development in its appreciation that tourism creates jobs, drives exports, and generates prosperity across the world.

So far not sufficiently highlighted is the close relation of tourism and agriculture which go in parallel in many countries, but in quite a different weighting. Agriculture is the senior partner that opened doors for tourism development at many places particularly of those destinations that experienced primarily an endogenous tourism development. Here local people were the driving force behind tourism activities. In 2016 the share of agriculture in global GDP was 3.7 percent as compared to 7.9

percent in 1996. The share of tourism in 2016 is 3.1 percent in global GDP and within short time tourism will become economically more important than agriculture. In contrary to the endogenous development based on agriculture and rural areas we find many places where tourism development is promoted by external developers boosting primarily the regional economy and not necessarily the local one.

Tourism in Indonesia is an important component of the Indonesian economy as well as a significant source of its foreign exchange revenues. The vast country of sprawling archipelago has much to offer, from natural beauty, cultural heritage to biologic diversity. The direct contribution of travel and tourism to Indonesia's GDP in 2014 was US\$ 26 billion constituting 3.2 percent of the total GDP (Indonesia Investments, 2014). The Indonesian government aims to increase this figure to 8 percent of GDP and the number of foreign visitors is targeted to about 20 million in 2020. The number for 2016 was 12 million foreign arrivals (Indonesia Travel, 2017) generating some 15 billion US\$ in foreign exports. Foreign tourists stay almost 10 days per visit in the country. Currently the split between foreigners and residents in tourism earnings is 40 percent to 60 percent due to some 270 million trips undertaken domestically. Singapore, Malaysia, China, Australia, and Japan are the top five sources of visitors to Indonesia. Indonesian government want to focus on some top destinations to further develop tourism: Borobudur, Mandalika, East and West Nusa Tenggara, Labuan Bajo, Bromo, Thousand Islands, Toba, Wakatobi, Tanjung Lesung and Morotai and Tanjung Kelayang.



Indonesia is embedded within the ASEAN region. This region has one of the highest growth in international tourism and almost tripled the amount of foreign visitors during 2000 and 2016. The direct contribution of Travel & Tourism to ASEAN GDP was US\$ 0.12 trillion or 4.7percent of ASEAN GDP in 2016. The 113 million foreign ASEAN tourists contribute to 8.6percent of total exports in 2016. The total contribution of Travel & Tourism is 11.8percent of GDP and is expected to be 13.5 percent of GDP in 2027. This is considerable higher than the world average and ASEAN region is one of the top tourist regions in the world. The rank of Indonesia is however not in the forefront of ASEAN countries. Other ASEAN countries were more successful in promoting their tourism. Despite the fact that Indonesia hosts 41 percent of the 639 million ASEAN people (2016), its share in international tourism was around 10 percent of international ASEAN tourism with a maximum of 12.9

percent in 2000 and a minimum in 2006 with 8.6 percent. Countries like Malaysia and Thailand had close to three times more tourism than Indonesia with a similar range of touristic products.

## 2. Country comparison Indonesia - Austria

In this article we first describe Austrian tourism - which is to more than 80percent rural - to an Indonesian audience and then emphasise that local food and agriculture can play a key role in advancing tourism. Particularly in rural areas tourism and agriculture can go hand in hand to further regional economic development like it was the case in Austria. In Indonesia there might come a similar major shift towards tourism in the near or mid-term future. Tourism builds widely on the structure that was built up by agricultural and fishing activities. These activities do no longer provide enough income. Taking a combined tourism-agriculture strategy from Austria and Europe, we can exemplify how tourism and agriculture can jointly create considerable higher incomes. In a second part we propose to use the varied Indonesian food and cuisine to promote tourism at all scales: national, regional and local. Thereby tourism will support the sustainability of agro-industry. In fact we already find many good Indonesian examples on how to promote food specialities and they can be combined in a strategy. Eventually the experience from Austria can help here.

An introductory task is to make the two different countries comparable to allow judgements in how far transfers of approaches are likely to succeed. In Table 1 we give recent data on the structure of the two countries.

**Table 1: Country Comparison Indonesia - Austria with selected indicators**

	<i>Indonesia</i>	<i>Austria</i>
World Bank Classification	Lower middle income country	High income country
Gross National Income	\$1,020,000 billion	\$387,299 billion
Population in million	261	8.8
Area in km <sup>2</sup>	1,904,569	83,879
Population density	125	104
Per capita income	\$3,895	\$44,561
Arable land per person	0.09 ha	0.16 ha
Agricultural land in percent of total	32percent	38percent
Forest Land in percent of total	50percent	47percent
CO2 per capita	1.91 t	7.36 t
Rank in CCPI (Germanwatch 2017)	22 [score 58.86]	41 [score 52.0]
Passengers carried by plane	89 million	14.7 million
Agriculture in percent of GDP	13.5	1.3
Services in percent of GDP	43.3	70.7
Incoming tourism percent exports	5.8	9
Outgoing tourism percent imports	5.1	5
Source: World Bank 2016 (most recent data 2014 to 2016)		

While Indonesia is an emerging economy, Austria is a mature economy. The per capita income of 2016 is more than 10 times higher in Austria and annual CO2 emissions are four times higher. Agriculture is on retreat in Austria, the agricultural land is declining while forest land is again going up. This is different in Indonesia where the forest land was shrinking and the agricultural land increased. There is twice the arable land per inhabitant in Austria. On the other side there are more harvests in Indonesia. Agriculture is the dominant sector in rural Indonesia with 13.5percent share in GDP and tourism - probably one tenth of the services GDP - is still less than one third of this number.

Tourism is well developed and mature in Austria while it is a high growth potential industry in Indonesia with a planned doubling in international tourism during the coming decade. Tourism in Indonesia is widely based on air traffic and an increase in air traffic for further tourism growth while in Austria only a small portion of tourists is arriving by plane and ground based transportation in particular private cars are used to consume tourism. This infrastructure is not built in a comparable way in Indonesia. Roads in Austria are less affected by traffic jams. In Indonesia tourism is much better developed in targeted tourism resorts and regions. The shape of Indonesia with many remote islands makes it difficult to pursue an equal touristic development all over the country which is a declared goal of the tourism policy in Austria.

Sustainability is a repeated aim from its early beginning in the 1960ies and the publishing of "silent spring" (Carson R., 1962) to the "limits to growth" report (Meadows et al. 1972) the first UN conference of environment and development in Stockholm in 1972, the "Brundtland Report" (WCED 1987) leading to the establishment of the IPCC and international negotiations to climate change, the 2nd UN conference on environment and development in Rio de Janeiro, the United Nations Millennium Development Goals (2000) and their update "2030 Millennium Development Goals" (United Nations 2015). Agriculture was always in a very prominent place. The book silent spring blames pesticide or industrial fertilizer use and the death of birds after spraying pesticides from the air. This book can be regarded as a waking call for the environmental movement during the 1960ies. Food security, the eradication of famine and poverty is another major and repeated goal of sustainability.

While it seems clear what the term means for agriculture, sustainability is more difficult to define with regard to tourism and the term was developed isolated from overall aims outlined in the Brundtland Report (Hunter, 1997). In particular as the term sustainable tourism was used for marketing of smaller scale remote area tourism or to promote tourism in nature protected areas without giving any evidence in how far overall sustainability criteria are met. Green or rural tourism are perhaps better terms to describe non urban tourism. The very close dependence of agriculture and tourism was brought to attention by Sharpely (2004) when he analyzed the consequences of the foot and mouth disease in England. Emergency measures like killing and burning infected life stock disturbed the romantic picture of sane country side promoted by tourist agencies. In addition precaution measures like prohibiting trekking tourism in affected zones stopped tourism almost entirely and made the economic importance of (non) tourism for rural areas noticeable. Similar problems were observed in other European regions e.g. the Danube Delta when avian flu affected tourism.

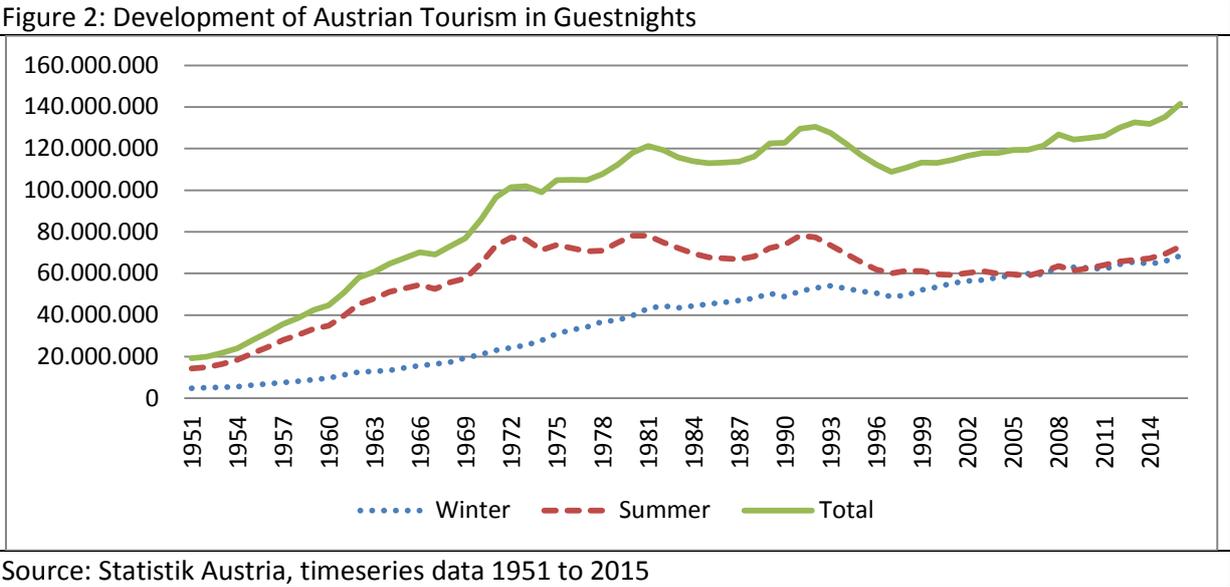
Recently a more elaborated approach was launched by the EU Directorate of Trade and Commerce by outlining a range of sustainability criteria that have to be met by tourist destinations to be named a sustainable tourist destination (European Commission 2016). However, primarily remote tourist destinations - that otherwise cannot compete in the dense European tourism market - overtook the guidelines and under casted themselves to voluntary reporting procedures. A stronger effect can be expected when an UNESCO award as a national heritage site is in sight. Better off and already famous tourist destinations in Europe do not need an additional instrument to promote them. Sustainability is not the most requested quality in tourism and in particular a chance for remote tourist destinations.

Climate change and climate protection is currently the most important topic within sustainability. Since 2005 the climate change performance index is measured by the Germanwatch Institute in

cooperation with Climate Action Network a global alliance with 300 national partners worldwide (Burck et al. 2016). So far no country does enough to stop climate change emissions and adverse land use changes like deforestation. The Paris Agreement (2015) set a new climate target that global warming has to remain within a 2°C range. All nations have to work 100percent or to score 100 to reach this aim. This year Indonesia ranks 22nd scoring 58.21 in the group of moderate performers, while Austria is in rank 41 with score 50.69 in the group of poor performers. It is obvious that both countries are not contributing enough to reach global sustainability.

### 3. Rural Tourism in Austria

Tourism can contribute to the wellbeing of farmers and to social and economic sustainability. Prices in agricultural commodities were continuously going down. Other means of income have to be considered. In urban near areas there is the possibility to look for a side job. The more remote areas cannot do this and have to go for other solutions. In Austria the poorest farmers high up in the mountains were the first ones to establish winter tourism. The productivity of their farms was very low. As farmers wanted to stay at their land they had to find other means of income and started tourism in a modest way. The first interest of tourists was in summer tourism and activities undertaken in summer. With higher incomes winter tourism developed later on when many people could effort a second holiday. Many poor mountain farmers became rich over time as the low productivity of their land in agriculture became high productivity in tourism.



In Figure 1 we explain the tourism development with the indicator guest overnights per year. Austria would not be so successful in tourism if it would not have two tourist seasons. Austria is perhaps the best case study in Europe to investigate on how to keep rural land populated by a shift of economic activities from agriculture to tourism. Austria in the centre of Europe is an intensive tourist country. In 2016 USD 19 billion were earned in tourism or more than USD 2200 per person and year by each of the 8.5 million inhabitants. This relates to 6 percent of direct earnings in tourism, but with multiplications in other economic sectors and related indirect earnings this number reaches 15 percent (UNWTO 2016). In comparison agriculture and forestry account for USD 9.5 billion annual earnings (Austrian Ministry of Agriculture 2017) or half of the number earned in tourism. However, rural tourism is deeply rooted in agricultural activities. Rural areas in Austria are more populated

than the rural regions of other industrialized countries. So far outmigration to cities could be minimized as tourism provides more income possibilities for younger people.

The possibilities to establish tourism after 1950 were well taken in Austria, a landlocked country. More than 80 percent of tourism happens in rural areas. Less than a third (32.2 percent) of the 41.5 million Austrian tourists are local residents (Statistik Austria, 2017), the reminder originates primarily from within EU whereby Germany and Netherlands are the most important foreign groups of tourists. Each tourist spends in average 3.4 guest nights in Austria summing up to over 140 million guest nights. The 18.5 million tourists in winter period (November to April) spend more money than 23 million tourists during summer period (May to October).

Two thirds of the Austrian landscape is mountains and today we find two seasons, a summer season with a peak in August and a winter season with a peak in February. Summer tourism - coinciding with agricultural production - and winter tourism - primarily snow based activities - are quite different with regard to their touristic products. The rural landscape is a key asset of particular summer tourism. Here hiking, biking and swimming in lakes are major activities. Snow based winter tourism with skiing and other winter sports is more technology based and the management of winter resorts requires therefore extra skills.

The climate fluctuates according to the season and month and the altitude above sea level starting with 117m in the lowlands of Eastern Austria to 3797m, the peak of Mount Großglockner in the Alps. The mean altitude of Austria is 950m above sea level. The population lives in their majority with 56 percent under 400m altitude, 38 percent live between 400m and 800m altitude and 6 percent live above 800m (Breiling et al. 1997). The highest permanent settlement is situated in 1780m altitude. The highest hotel infrastructure is in 2400m altitude. Currently snow based winter tourism provides the highest income and there are more than 300 ski resorts with 25,000 ha ski tracks. The highest part of the Austrian landscape is only used by few mountaineers and more than 99.9 percent of tourism does not exceed 2.800m altitude. A climate change induced problem is that winters get warmer and we cannot rely on natural snow in particular in lower areas of the country. Snow making infrastructure was established at 17,000 ha ski tracks to adjust to the changed climate conditions and to secure income to rural areas during winters. Skiing requires today the highest amount of irrigation water and ponds to supply this water were established all over in the landscape.

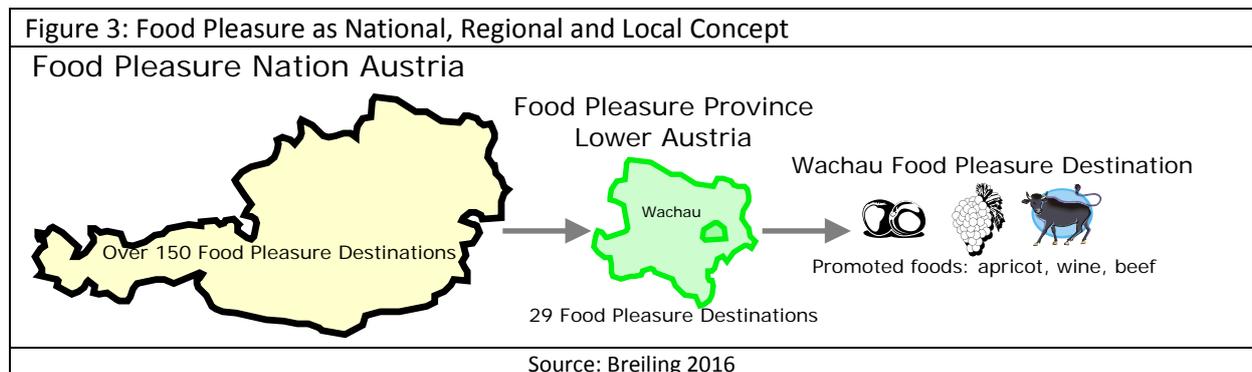
There are about 80,000 tourism companies including 15,000 hotels in different categories, more than 2,000 mountain ropeways to transport tourist into high altitude resorts. Currently there are still 161,000 farm units in Austria (Austrian Ministry of Agriculture, 2017). Every 7th farm or more than 20,000 farms offer so called farm holidays. Each farm offering more than 20 beds, usually 10 rooms needs to have one family member or employee with a diploma from a special education in tourism and hospitality management to guarantee a high level of tourism. In many cases farm holidays are organized in online platforms (such as [www.farmholidays.com](http://www.farmholidays.com)), sometimes organized via farming organizations and otherwise via local tourist associations. Recently also large portals (like [www.booking.com](http://www.booking.com)) have a direct link to offer farm holidays in Austria. The farms are members of an association and have to comply with certain criteria. The offer can include simple overnight services or include some particular experience products such as guided tours to mountains, courses on food production, degustation of cheese, wine, sausages and more agricultural products

#### 4. Food pleasure destinations as national or regional agro-touristic strategies

We give examples to alter the tourism value chain from inside a destination or country. Most aspects of tourism cannot be directly influenced from within the destination. The case is different if we consider the establishment of a food pleasure destination. The idea is to describe how a destination can earn considerably more money with more local resources and less imports by developing an appropriate business strategy and then to implement it in a concerted effort. The more destinations that follow the concept the better it is. Instead of one particular food pleasure destination we then get entire food pleasure regions. In addition the sustainability of resorts and destinations increase at the same time as more local resources is used at the expense of cheaper imports.

A long tradition, efforts often lasting decades and a continuous struggle to improve the quality of a typical product are signs in developing food to a trade mark and to an elevated touristic product.

We describe the local efforts in Austria to build up food specialities and to gain an important place in the international community. This in turn helps tourism and leverages destinations undergoing the process from more general to specific ones. Thereby the same marketing approach is used for the national, provincial and local destinations.



The national webpage provides access to over 150 food pleasure destinations all over Austria (<http://www.genuss-region.at>). For the distant visitor from Indonesia or elsewhere it is important to promote Austria as a whole as a country of food specialities and make tourists curious on new food experiences as a part of their travel. For tourists who already know Austria this approach would be too general. Therefore in a next step the promotion of the province is targeted and the differences in different food traditions can be explored here. In Figure 2 we select Lower Austria province to give more information on 29 particular food pleasure destinations that can be visited. Lower Austria is surrounding the capital Vienna and the destinations aim to invite particularly citizens from Vienna to visit and explore them. Particularly well known is Wachau cultural landscape also a UNESCO World heritage. At this point we go into three awarded agricultural products, the local apricot variety, the “Wachauer Marille”, the grapes for producing white wine like “Grüner Veltliner var. Federspiel and var. Smaragd” and the most recent local product the “Wachauer beef”.

Wachau is since many decades well known for apricots and wines. Apricots flower in April and May and get mature during July. Wine grapes get mature during late August and September, young wine can be consumed during October. So during the entire vegetation period there is an incentive to visit the region in particular for the agricultural products. All year round popular is the Wachauer beef, an invention made 25 years ago when a local inhabitant decided to start with cattle breeding on meadows that were sometimes flooded and not suited for fruit cultivation. The project was a great success; the demand after Wachauer beef is much higher than the supply. The production cannot be

expanded as the available land limited and therefore the meat is not exported but has to be consumed within the region in one of the restaurants offering this speciality.

The food products, the life style of farmers and the production methods in rural settings developed into a set of touristic experience in the Wachau Cultural Landscape. This helped to mutually improve the agricultural and the tourism sectors. A set of businesses related to the food processing, the agricultural production, the selling and marketing of typical regional products, the local restaurants and the hotel owners and providers of other accommodation profited from the local cooperation in an extraordinary way. The value added to the local products by concentrating on business cooperation of the own region can be several times higher than what it would be otherwise.

This concept proven to work in Austria could be transferred to Indonesia. But Indonesia is much larger and considerable more diverse than Austria. The idea could be first introduced and administered in any of the more than 30 Indonesian provinces according to a developed set of criteria. Successful provincial concepts can be combined to a national one later on. In addition there might be other programs already in place that should be incorporated into a national program and modified according to a national or provincial joint agro-tourism strategy. One food related program outlined in the ASEAN Tourism Strategic Plan 2016-2025 are ASEAN food trails coordinated by the tourism board of Malaysia (ASEAN 2016). It was not possible to identify all local and regional frameworks already in place. The 104 Indonesian universities offering agricultural education could be instrumental with their knowledge and direct contacts to farmers and local food producers to combine single initiatives to a large framework.

Provincial programs to support local food tourist destinations should be built up with government support. Each tourist destination should get the possibility to apply and a coordinating body situated in the provincial government or tourist board could propose food pleasure destinations. In a joint effort of local applicants, the tourism and agricultural department the exclusivity of the food product or suitability to elevate it to a special lead agricultural product could be tested. For example in Bali one can find rice products originating from the UNESCO protected agricultural heritage sites offered at a superb price. Luwak coffee is another candidate. Varieties of tropical fruits, different kind of sea foods are yet other suitable products that should be systematically presented to tourists as agricultural flagship products. As compared to the comparatively small Austria it is likely to come up with 2000 or more destinations in entire Indonesia. To keep an overview for visitors and to differ between domestic, ASEAN region and other international tourists, versions of different complexity could be established.

## **5. Conclusions**

Indonesian and ASEAN tourist prospects can raise high expectations for any community currently not or not sufficiently participating in tourism. However, even in a situation of extraordinary growth it is not sure that those who need development most of all will participate in the wealth brought by tourism. The gap between investors searching for appropriate business opportunities and rural communities can be enormous or even unbridgeable. Income levels are rising even for middle and lower middle classes and they should spend their money for tourism in the vicinity. The standards of tourism products should be adjusted to the needs of the nearby middle class.

In comparison to Austria with an almost entirely endogenous tourism development building widely up on agriculture and the established agricultural infrastructure, Indonesian tourism develops more from outside regions and destinations. This means that large parts of tourism revenues can flow out again and expected multiplication effects for local communities are limited. In Austria a major touristic development started 1950 onward in a relative slow pace. In Indonesia the development period of tourism is much shorter. In Austria for decades we had regional visitors and the adjustment of people offering and selling tourism was not so difficult. With increased numbers of international tourism the rural tourism development can be challenged in particular due to different values and attitudes. A rural tourism policy with destinations for nearby domestic and distant international tourists may help here. Austria is particularly suited for tourism. It is surrounded by densely populated countries. The Netherlands have no or Germany has not sufficient mountains to host tourists in appropriate numbers. So the number of tourists depends highly on alternative offers in the region.

Tourism offers great potential for contributing towards eradicating regional poverty. Rural areas and the communities living in them are often the primary focus of tourism activity such as natural and cultural area sightseeing, trekking, hiking, mountain climbing, river and coastal recreation, swimming and sports. In the Indonesian tourism plan we find particular development zones outlined that can expect prioritization in planning tourism ventures. In general they have comparatively better access than many other locations. A more inclusive pattern of tourism like expressed in the vision for ASEAN tourism (2016), requires that marginalised communities are more engaged in the tourism economy at a destination level.

The agricultural sector can offer particular assistance in promoting tourism and vice versa can gain extra income provided by tourists. This potential seems currently underutilized in Indonesia due to lacking awareness of the interrelations of agriculture and tourism. More or more visible agro-touristic programs are required to enable an endogenous tourism development. This can guarantee that primarily local interests are considered and residents can take direct benefits. Such programs should differentiate between inviting local, regional and distant tourists as requirement for skills and investment will be different according to the targeted tourists. An inclusive destination policy and framework contributes new economic opportunities to rural and remotely located communities in Indonesia. Food and the exchange of food traditions can be very important in promoting local and regional tourism.

The broad network of agricultural universities in Indonesia should be used to promote agro-touristic programs. In parallel it is advisable to establish local and regional agro-tourism and hospitality educational programs. Each university can become a node for developing agro-touristic programs that go considerably deeper into rural areas than the current vision is. Touristic rural innovations – like farm home stay, food festival programs – can temper economic differences to urban areas and will help to keep rural areas populated.

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