About small agriculture agroforestry support project based on Jussala-palm for regeneration of coastal forest conservation along Sao Paulo State, Brazil

April 1, 2017

NPO VERSTA
〒103-0022  At Japan Business Solutions, Inc.
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In order to prevent global warming, it is important to reduce CO2 emissions, which is the main cause of global warming, and at the same time to regenerate and preserve oceans and forests, which are CO2 sinks. Only 9% of the earth's area forests account for about half of the CO2 absorption on the planet.

We NPO VERSTA support the activities of agroforestry (*) to regenerate and conserve sustainable forests by a phrase “Stop Global Warming!” , thereby contributing to the prevention of global warming.

(*1) The name VERSTA is a combination of “green” (VERDE) and festival days (FESTIVAL) taken from Portuguese and Spanish, to mean “green public holidays and festival days”. VERSTA has applied for official NPO authorization.

(*2) Agroforestry (AF) is agricultural methods aimed at the stabilization of the farmhouse income by combining agricultural and forestry management techniques. AF prevents illegal deforestation and enables maintenance and reproduction of natural environments such as tropical rain forests.
• NPO VERSTA Overview

- **Mission**
  In order to realize our philosophy and vision, we collects funds by activities through the following the 1st, and the 2nd, projects, etc., and conducts the 3rd. project and the 4th. project by these funds, whereby we will promote the spread of agroforestry (AF).
  - The 1st AF support charity live project (AF AID)
  - The 2nd AF support music distribution project (AF Music Distribution)
  - The 3rd AF cultivation method establishment support project
  - The 4th AF fruit commercialization support project (High value added support)

- **Commitment**
  VERSTA is responsible for contributing to the maintenance of the conservation and regeneration system of the Brazilian Atlantic coastal forest by continuously supporting the support activities to promote sustainable conservation and reforestation of the forest.

- **Members**
  - Regular Member (Individual) : 16 people (President Toru Tanaka/Former Brazil Yanmar CEO)
  - Supporting Member (Company / Group) : KURARAY Co., Ltd

- **Concept of activity**

  ![Diagram showing the relationship between Academian + Administration, Company, Citizen, Academy, Sao Paulo State, VERSTA, Agroforestry support activities, Funds, and Counterpart. CO2 is shown as an absorption source.]
• Supporting activity area

- Rio Preto’s model field
- Rapoza’s Model field

131Mill. ha
13 Mill. ha
• The 1st PJ Works “AF AID”

◆Program
Part I: Video lecture “Agroforestry”
  Lecturer/Dr. Masaaki Yamada
  (TUAT Graduate School Prof.)
Part II: Special Live

◆Vol.1
Date and time : Sep.17, 2009 (Fri)
  Opening 19:00/Ending 21:30
Place : Latin Culture Salon “CAFÉ y LIBROS”
  (Meguro, Meguro-ku, Tokyo)
Artists : Luis Sartor (From Argentina), LIETI, Natsumi Imamura (Japan)

◆Vol.2
Date and time : Sep.30, 2011 (Fri)
  Opening 19:00/Ending 21:00
Place : Nihonbashi Social Education Center Hall
  (Nihonbashi, Chuo-Ku, Tokyo)
Artist : Takako Shirai (Japan)

◆Vol.3
Date and time : Dec.7, 2011 (Fri)
  Opening 18:00/Ending 21:00
Place : SHIBUYA LOOP –Annex
  (Udagawa-Cho, Shibuya-Ku, Tokyo)
Artists : Azabu Smith etc.
3. Overview of The NPO VERSTA

"Ritsuko Endo with FunkyRitsukoVersion"

- Registration permission
- Registration application
- Downloads Streaming
- 1% distribution
- Original usage fee payment
- Original use fee
- Music usage fee payment

"The 2nd PJ Works "AF Music Distribution""
### The 3rd PJ Works

**“AF cultivation method establishment support project”**

<table>
<thead>
<tr>
<th>Activity objective</th>
<th>By spreading agroforestry (AF) with Jussala palm, which is a native species of the same forest, as a core crop against small farmers living in the Brazilian Atlantic coast forest where 97% was harvested. It aims to establish sustainable farming methods that do not rely on illegal logging of coastal forests.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activity works</td>
<td>Fiscal Year 2014’s works</td>
</tr>
<tr>
<td>53 people participated in the PJ meeting + tech. exchange meeting at Rio Preto in Sete Barras City. The model field was 6 farmers 0.9 ha. Follow-up guidance of the model field was conducted six times, and an AF promotion seminar was conducted Twice(232participants) to establish the Jussala-palm AF cultivation method.</td>
<td>48 people participated in the PJ meeting + tech. exchange meeting at Rio Preto in Sete Barras City. The model field was 7 farmers 0.9 ha. Follow-up guidance of the model field was conducted eight times, and an AF promotion seminar was conducted Twice(250participants) to establish the Jussala-palm AF cultivation method and to promote jussala-palm fruit.</td>
</tr>
<tr>
<td>Activity System</td>
<td><strong>Japanese domestic organization</strong></td>
</tr>
</tbody>
</table>
| ◆ VERSTA Jussala-Palm Domestic Project Committee  
  ・Committee member: Dr. & Prof. Masaaki Yamada (TUAT Graduate school), Mr. Toru Tanaka (President of VERSTA), Mr. Akio Chikai (Vice President of VERSTA), Dr. Yoshikazu Onose (Managing Director of VERSTA) | ◆ Jussala-Palm Japan Brazil Joint Project Committee  
  ・Representative: Mr. Guenji Yamazoe (Former president of Sao Paulo State Environment Bureau Forestry Institute, Brazil) etc.  
  ・Cooperative network organization: Sao Paulo State Government Forestry Institute, Forest Foundation, RBMA, Ufscar, UNICAMP, Sete Barras City, TV-BAND, etc. |
| Adoption Grant | ERCA Japan Fund for Global Environment: Fiscal Year 2012 Introductory grant ¥1,600,000; Fiscal Year 2014 General grant ¥2,000,000; Fiscal Year 2015 General grant ¥2,000,000; Fiscal Year 2016 General grant ¥2,000,000 |
### Record of The 3\(^{rd}\) PJ Works\(^{(1)}\)

### Fiscal Year 2012’s Activity Record\(^{(1)}\)

VERSTA Jussala-Palm AF support activity begins in **Sete Barras City Rio Preto** from July 2014

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>July 10, 2012</strong></td>
<td></td>
</tr>
<tr>
<td>- in front of Rio Preto meeting place</td>
<td></td>
</tr>
<tr>
<td>- Jussala-Palm + Cafe commemorative planting in Rio Preto</td>
<td></td>
</tr>
<tr>
<td>- at the Rio Preto seedlings field planning site</td>
<td></td>
</tr>
<tr>
<td><strong>July 11, 2012</strong></td>
<td></td>
</tr>
<tr>
<td>- meeting with Niusu Akiko mayor at Sete Barras City</td>
<td></td>
</tr>
<tr>
<td>- Professor Fernando lecture at Sete Barras City Project Conference</td>
<td></td>
</tr>
<tr>
<td><strong>July 12, 2012</strong></td>
<td></td>
</tr>
<tr>
<td>- Dr. Yosikazu Onose lecture at Sao Paulo State Government Forestry Institute Hall</td>
<td></td>
</tr>
</tbody>
</table>
• Record of The 3rd PJ Works②

• Fiscal Year 2012’s Activity Record②

◆ Left : Sao Paulo newspaper electronic version (August 2, 2012 edition)
◆ Right : TV-BAND agricultural channel TV-TERRAVIVA 30 minutes special program aired (Aired on August 6, 2012)
• **Record of The 3rd PJ Works**

• **Fiscal Year 2013’s Activity Record**

- Cultivation guidance to AF farmers by Brazilian counterpart organization
- Support for purchasing seeds, fertilizer, agricultural machinery by VERSTA original support money ¥ 200,000
● Record of The 3rd PJ Works

- Fiscal Year 2014’s Activity Record

- Guidance on cultivation of AF farmers in Rio Preto by Brazilian counterpart organization
- Purchase of seeds, fertilizers etc. by the Japan Fund for Global Environment of ¥2,000,000, support for follow-up guidance etc.

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>August 18, 2014</td>
<td>at Sete Barras City Bunkyo Association hall</td>
</tr>
<tr>
<td>August 19, 2014</td>
<td>in front of Rio Preto meeting place</td>
</tr>
<tr>
<td>August 19, 2014</td>
<td>Commemorative Planting at the AF field of Rio Preto</td>
</tr>
<tr>
<td>August 20, 2014</td>
<td>Courtesy Visit to Sao Paulo State Brazil Japanese Chamber of Commerce</td>
</tr>
<tr>
<td>August 21, 2014</td>
<td>Courtesy Visit to Sao Paulo State Government Forestry Institute</td>
</tr>
<tr>
<td>August 21, 2014</td>
<td>Dr. Onose receiving TV interview on TV–BAND</td>
</tr>
</tbody>
</table>
## Record of The 3rd PJ Works

### Fiscal Year 2015's Activity Record

- Guidance on cultivation of AF farmers in Rio Preto + Rapoza by Brazilian counterpart organization
- Purchase of seeds, fertilizers etc. by the Japan Fund for Global Environment of ¥2,000,000, support for follow-up guidance etc.

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>August 26, 2015</td>
<td>Visit to Sao Paulo Branch of the Brazilian Federal Agriculture Ministry</td>
</tr>
<tr>
<td>August 27, 2015</td>
<td>Visit to the Nebrinas Forest Park</td>
</tr>
<tr>
<td>August 27, 2015</td>
<td>Courtesy Visit to Sao Paulo State Government Forestry Institute + Atlantic coastal forest biosphere</td>
</tr>
<tr>
<td>August 29, 2015</td>
<td>PJ Conference at Bunkyo Kaikan, Sete Barras City</td>
</tr>
<tr>
<td>August 30, 2015</td>
<td>Rio Preto Jussala Palm AF field plate</td>
</tr>
<tr>
<td>March 4, 2016</td>
<td>Jussala–Palm AF Promotion Seminar in the local Agricultural Newspaper</td>
</tr>
</tbody>
</table>
• Record of The 3rd PJ Works⑤
• Fiscal Year 2016’s Activity Record

◆ Guidance on cultivation of AF farmers in Rio Preto＋Rapoz by Brazilian counterpart organization
◆ Purchase of seeds, fertilizers etc., support for follow-up guidance, and production support for Jussala-Palm AF cultivation manual by the Japan Fund for Global Environment of ¥2,000,000

August 16, 2016, Jussara-palm seedlings appeared at Rio Olympic opening ceremony athletes admission
August 26, 2016, Model field seedlings at Jussala-Palm AF Project Conference site
August 26, 2016, Jussala-Palm AF Project Conference at 5th Kaikan Rapoza, Sete Barras City

August 27, 2016, Technical exchange meeting at Rapoza model field
August 30, 2016 Meeting with Sao Paulo State Government Forestry Institute and Forest Foundation etc.
November 1, 2016, Nakaemi Consul-General of Japan in Sao Paulo visit to the Jussala-Palm AF model Field at Rapoza
• Record of The 3rd PJ Works

• Antioxidant component and a list of major life activator Brazilian fruits (excerpt)

<table>
<thead>
<tr>
<th>Brazilian fruit (excerpt)</th>
<th>Total anthocyanins (mg/100 g fresh matter)</th>
<th>Extractable polyphenols (mg GAE/100 g)</th>
<th>Yellow flavonoids (mg/100 g fresh matter)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Species</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acerola</td>
<td>Malpighia emarginata</td>
<td>18.9 ± 0.9</td>
<td>1063 ± 53.1</td>
</tr>
<tr>
<td>Camu-camu</td>
<td>Myrciaria dubia</td>
<td>42.2 ± 17.0</td>
<td>1176 ± 14.8</td>
</tr>
<tr>
<td>A:Açaí, assai</td>
<td>Euterpe oleracea</td>
<td>111 ± 30.4</td>
<td>454 ± 44.6</td>
</tr>
<tr>
<td>B:Juçara, Jussara</td>
<td>Euterpe edulis</td>
<td>192 ± 43.2</td>
<td>755 ± 8.3</td>
</tr>
</tbody>
</table>

B/A(%)                  | 173.0                                    | 166.3                                  | 410.7                                  |

Function
- Prevention of scurvy
- Promotion and absorption of minerals
- Antioxidant effect (hardening of the arteries, stroke prevention)
- Suppression of muscle fatigue
- Antioxidant effect
- Hormone promoting action

Reference: Maria do Socorro M. Rufino other writing “Bioactive compounds and antioxidant capacities of 18 non-traditional tropicalfruits from Brazil”, Food Chemistry 121 (2010) 996–1002
We are looking for health food companies and universities / research institutes interested in anti-aging ingredients of Jussala-palm fruit.

We will wait for your inquiries.