Gree	<b>New Weight Street Stre</b>
Successful business of Entrepreneurs in the M	cases of Green
	gradable pens and and pencils from ary and recyclable plastic in Turkey
Name: City, country: Name of entrepreneur/	Steppen Istanbul, Turkey
founder:   Description:	A company active in the field of plastic mould and products manufacturing has developed a series of new eco-friendly pens and pencils, and is the only producer of biodegradable pen in Turkey so far. The barrel parts of the pens are made of recycled paper the refills are produced with non toxic ink and the nozzels, clips and push buttons are produced from biodegradable plastic.
Employment generation:	10 professional employees and 28 non-skilled workers are employed for the pro- jects.
Timeline:	2008 - Inception 2008 – Implementation
Feasibility study:	Annually, STEPPEN produces almost 7,000,000 biodegradable pens, from 70 tons of biodegradable plastics. Depending on the design and type of the pen, they are sold at a price of 0.15-2 € per item.
Geo-social-economic setting:	There is a growing interest in Turkey for eco-friendly product and services and thanks to the successful applications of biodegradable materials and products around the world there is an increasing demand especially on biodegradable products in Turkey. In Turkey, the majority of housewives are not able to generate income and thereby lack financial freedom, whereby projects and entrepreneurial activities targeting woman employment is receiving considerable attention. Soil Erosion, Forestation and the Protection of Wildlife are still hot topics in Turkey with big campaigns led by TEMA (The Turkish Foundation for Combating Soil Erosion, for Reforestation and the Protection of Natural Habitats) on these subjects.
Key features: Innovative:	Environmental Friendly Products, Woman Empowerment, Woman Employment, Biodegradable Plastics, Resource Efficiency, Awareness raising, Recycling, Inno- vation.
Overall rational and motivation:	To spread the knowledge of environmental protection to people who are interested in distributing and/or using the products. To take part in the protection of envi- ronment, save natural resources and support forestation. To increase the sales by innovations targeting to an emerging market of environmentally friendly products.
Strengths:	Environmental Friendly Products, Woman Empowerment, Woman Employment, Biodegradable Plastics, Resource Efficiency, Awareness raising, Recycling, Inno- vation.

 Challenges and constraints:	The lack of knowledge regarding environmental protection in Turkey, The lack of market for eco-friendly products in Turkey, High prices of eco-friendly raw materials, No additional incentives for environmentally friendly products. High prices of eco-friendly raw materials, lack of additional incentives for environmental products.
Direct activities and impacts:	<i>Social</i> : Employment of economically disadvantaged groups, housewives and unemployed people. <i>Environmental</i> : Conversion of 70 tons of plastic into biodegradable plastic, avoidance of deforestation for producing pencils, tree planting, parts of the profits donated to TEMA (The Turkish Foundation for Combating Soil Erosion, for Reforestation and the Protection of Natural Habitats). By using waste paper instead of tree the followings can be achieved for the manufacture of a pen: 25-70% energy saving, 60% reduction in air pollution, 40% reduction in water pollution, 60% water saving, 40% reduction in the volume of garbage. <i>Economic</i> : Employment and income generation.
Use of innovative tech- nologies:	Pine seeds are placed in the cap of the pen, its body is made of recycled paper and the rest is made of biodegradable plastic. This innovation encourages customers to plant their own trees, attracting people's interest in eco-friendly products as well as supporting forestation. In 2009, GÖKNAR, a newly designed pen, received the "SME Environmental Friendly Product Award" from the Istanbul Chamber of Commerce and the product PEN WITH SEEDS received the 'Best Design Award' at Design Turkey 2010.
 Evidence of a holistic approach/world view:	Sustainability messages through innovative product designs and environmentally friendly raw materials.
 Scale of benefits:	38 people employed, 70 tonnes of biodegradable plastic manufacture from recycled material.
Policies, incentives and regulations needed:	Green Public Procurement should be considered and started at least as pilot appli- cations, For environmentally friendly products incentives (tax deduction/ exemp- tion, etc.) should be applied, stable market policies and conditions should be maintained for encouraging entrepreneurs and investors, The substructure for envi- ronmental technologies should be improved so that more expertise and technology verification means are created and investors feel more comfortable towards green entrepreneurship investments.
Lessons and recommendations:	Plastic, which is an important environmental problem due to its not being biodegra- dable, can be converted to an eco-friendly version. Usage of waste paper instead of tree provides reductions in pollutions and energy savings. Chase innovations in all over the world and good R&D work

References: www.step-pen.com

Steppen: Biodegradable pens and and pencils from recycled stationary and recyclable plastic in Turkey





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